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NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
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=> s l5 and conjugate

L6 113 L5 AND CONJUGATE

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L7 27 L6 AND ANTIBODY

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L8 ANSWER 1 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)

2002:54138 The Genuine Article (R) Number: 508FT. Synthesis of haptens and protein **conjugates** for the development of immunoassays for the insect growth regulator fenoxycarb. Szurdoki F; Szekacs A; Le H M; Hammock B D (Reprint). Univ Calif Davis, Dept Entomol, 1 Shields Ave, Davis, CA 95616 USA (Reprint); Univ Calif Davis, Dept Entomol, Davis, CA 95616 USA; Univ Calif Davis, Canc Res Ctr, Davis, CA 95616 USA; Hungarian Acad Sci, Inst Plant Protect, H-1525 Budapest, Hungary. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (2 JAN 2002) Vol. 50, No. 1, pp. 29-40. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036 USA. ISSN: 0021-8561. Pub. country: USA; Hungary. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Sensitive and selective enzyme-linked immunosorbent assays (ELISAs) in the immobilized antigen format were developed for fenoxycarb (1), an insect growth regulator (IGR). The parent molecule [ethyl 2-(4-phenoxyphenoxy)ethylcarbamate] was derivatized at several positions to obtain haptens (2-5) that were used to produce protein **conjugates** and rabbit polyclonal antisera. Amino derivatives of fenoxycarb at the terminal and internal rings (2 and 3, respectively) were linked to carrier proteins by azo coupling, Carboxyalkyl-spacer groups were attached to the ethyl group and the nitrogen atom of the target compound (1) to obtain haptens 4 and 5, respectively. Hapten-homologous ELISAs based on protein **conjugates** of compounds 2 and 4 determined fenoxycarb in the mid-ppb range (IC50, 102 and 95 ppb, respectively). A more sensitive hapten-heterologous ELISA (IC50, 17 ppb; detection limit 0.5 ppb) involved the antiserum raised against a **conjugate** of hapten 2 and the plate-coating antigen obtained from compound 3. These assays displayed no significant interferences with photodegradation products of fenoxycarb, the IGRs methoprene and pyriproxyfen, and a variety of pesticides including the pyrethroids fenvalerate and cypermethryn, the phenoxyacetic acid herbicide 2,4-D, DDT, and the nitrodiphenyl ether herbicides acifluorfen and fluorodifen.

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2002 ACS

2001:197060 Simple monoclonal-based approach for the multianalyte immunoassay of pesticides. Montoya, Angel; Abad, Antonio; Moreno, Maria J.; Manclus, Juan J.; Mercader, Josep V. (Laboratorio Integrado de Bioingenieria, Universidad Politecnica de Valencia, Valencia, 46022, Spain). Abstr. Pap. - Am. Chem. Soc., 221st, AGRO-098 (English) 2001. CODEN: ACSRAL. ISSN: 0065-7727. Publisher: American Chemical Society.

AB Enzyme immunoassays (ELISAs) are already recognized as simple, cost-effective and sensitive anal. methods for the detn. of a variety of individual pesticides. However, multiresidue methods are undoubtedly preferred over single residue methods for pesticide residue monitoring. With the aim of contributing to a broadest acceptance of immunoassays as routine methods in the pesticide anal. labs., the development of multianalyte ELISAs was undertaken. Using the **conjugate**-coated ELISA format, a simple approach was followed consisting of the use of a controlled mixt. of monoclonal **antibodies** (MAbs) as the single primary immunoreagent. Each MAb is specific for a certain pesticide, whereas the ability to identify and quantify individual analytes is obtained by immobilizing different coating **conjugates** into different wells of the ELISA plate. Multianalyte ELISAs could extend the traditional concept of multiresidue methods, since they can be developed to simultaneously analyze the presence of several pesticides from different chem. families and, therefore, with different physico-chem. characteristics. This way, the use of a specific instrumental technique

for each analyte could be avoided, with the subsequent saving of cost and labour. Table 1 shows a summary of the main anal. characteristics of the multianalyte ELISAs developed following this strategy. Table 1. Pesticide Multianalyte Immunoassays Developed at the Laboratorio Integrado de Bioingenieria. Pesticide family Compd. LOD (ng/mL) Calibration Points (ng/mL)

Pesticide family	Compd.	LOD (ng/mL)	Calibration Points (ng/mL)
N-methylcarbamates	Carbaryl	0.2	0.2 0.8 4.0
	Carbofuran	0.4	0.4 1.6 8.0
	Methiocarb	0.1	0.1 0.4 2.0
	Propoxur	0.8	0.8 3.2 8.0
	Bendiocarb	0.2	0.2 0.8 2.0
Organophosphorus	Chlorpyrifos	1.0	1.0 3.0 10.0
	Azinphos	0.1	0.1 0.3 1.0
	TCP metabolite	0.1	0.1 0.3 1.0
	Chlorinated		
DDT group		1.0	1.0 3.0 10.0
	Cyclodiene group	5.0	5.0 15.0 50.0
	Combined Carbaryl	0.25	0.25 1.0 4.0
Chlorpyrifos		0.75	0.75 3.0 12.0
	Thiabendazole	0.25	0.25 1.0 4.0

L8 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2002 ACS

2002:409435 Document No. 137:196870 Screening of environmental samples for an estrogenic pollutant: DDT. Graham, L.; Campbell, M. (Cooperative Research Programs, Lincoln University, Jefferson City, MO, 65109, USA). Proceedings of the Conference on Environmental Research: New Approaches to Managing Environmental Quality in the Heartland, Manhattan, KS, United States, May 21-24, 2001, Meeting Date 2001, 27-31. Editor(s): Erickson, Larry E.; Rankin, Mary M. Great Plains/Rocky Mountain Hazardous Substance Research Center, Kansas State University: Manhattan, Kans. (English) 2001. CODEN: 69CQN6.

AB Soil samples from 3 farm communities in southeast Missouri were analyzed for dichlorodiphenyltrichloroethane (DDT) and its metabolites, using a DDT test kit. The soil test kit is based on the use of polyclonal **antibodies** that bind either DDT or a DDT-enzyme **conjugate**. The same nos. of **antibodies** are immobilized to the walls of the test tubes. When DDT is present in samples, it competes with the DDT-enzyme **conjugate** for a limited no. of **antibody**-binding sites. The presence of DDT is detd. by a colorimetric reaction in the test tubes that yields a blue soln. Based on the binding of the DDT mols., a low concn. of DDT produces a dark blue soln., and conversely, a high concn. of DDT allows fewer DDT-enzyme **conjugate** mols. to be bound to the **antibodies**, resulting in a lighter blue soln. MeOH exts. of 11 soil samples were tested. Nine of the samples showed a level of 0.2 ppm or greater of p'-DDT. Only 2 samples had levels <0.2 ppm.

L8 ANSWER 4 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)

1999:237611 The Genuine Article (R) Number: 177TN. Development of monoclonal ELISAs for azinphos-methyl. 1. Hapten synthesis and **antibody** production. Mercader J V; Montoya A (Reprint). UNIV POLITECN VALENCIA, LAB INTEGRAT BIOENGINYERIA, CAMI DE VERA S-N, E-46022 VALENCIA, SPAIN (Reprint); UNIV POLITECN VALENCIA, LAB INTEGRAT BIOENGINYERIA, E-46022 VALENCIA, SPAIN. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (MAR 1999) Vol. 47, No. 3, pp. 1276-1284. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036. ISSN: 0021-8561. Pub. country: SPAIN. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The development of monoclonal **antibody**-based enzyme-linked immunosorbent assays for azinphosmethyl is described. A panel of haptens was synthesized for immunoconjugate preparation, and a series of haptens for heterologous, coating or tracer, **conjugates** was also prepared. Hapten synthesis was based on a strategy in which only a fragment of the whole target molecule was present (fragmentary haptens). From immunized mice, a set of monoclonal **antibodies** was obtained and ELISA sensitivities were assayed in different formats. Affinities estimated as I-50 values in the low nanomolar range for azinphos-methyl and phosmet were observed for several monoclonal **antibodies** in

the **conjugate**-coated format and in the **antibody**-coated format under nonoptimized assay conditions.

L8 ANSWER 5 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
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1998:409803 Document No.: PREV199800409803. Development of a panel of immunoassays for monitoring **DDT**, its metabolites, and analogues in food and environmental matrices. Beasley, Helen L.; Phongkham, Thipsavanh; Daunt, Margaret H.; Guihot, Simone L.; Skerritt, John H. (1). (1) CSIRO Plant Industry, G.P.O. Box 1600, Canberra, ACT 2601 Australia. Journal of Agricultural and Food Chemistry, (Aug., 1998) Vol. 46, No. 8, pp. 3339-3352. ISSN: 0021-8561. Language: English.

AB A panel of antisera was prepared using analogues and derivatives of metabolites of the organochlorine insecticide, **p,p'**-**DDT** as haptens. The assays developed exhibited differing cross-reactions for different **DDT** analogues and metabolites, and the choice of hapten for the detecting enzyme **conjugate** had almost as much effect on assay specificity and sensitivity as the structure of the hapten used for **antibody** production. Those assays developed using hapten 1, based on esters of bis(pchlorophenyl)acetic acid (DDA), typically detected DDA with greater sensitivity than **p,p'**-**DDT** or **p,p'**-DDE. The most sensitive assay for **p,p'**-**DDT** (lower limit of detection of 0.3 mug/L) was obtained using an immunogen based on bis(p-chlorophenyl)ethanol (hapten IV), although a significant crossreaction with dichlorodiphenyltrichloroethane (DDD) and DDE was obtained. The most specific assay for **p,p'**-**DDT** was obtained using an immunogen (hapten VI) that includes all elements of the **DDT** structure, except that one of the p-chloro groups was replaced by beta-alanine carboxamide for coupling to carrier proteins. **Antibodies** based on a similar DDE hapten (V) exhibited specificity for **p,p'**-DDE over **p,p'**-**DDT**. Greater specificity and sensitivity for dicofol were obtained by using an immunogen derived from ester hydrolysis of chlorbenzilate (hapten II). The assays provided methods for detection of **p,p'**-**DDT** plus **p,p'**-DDE either by using the **antibody** raised to hapten TV with **conjugate** based on hapten rb or by using the assay based on hapten V, with treatment of samples with warm alcoholic KOH, which converted **DDT** to DDE. Some of the immunoassays were applied to the detection of **DDT** and DDE in water, soil, and selected foods.

L8 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2002 ACS

1998:73885 Document No. 128:177817 A highly specific polyclonal antiserum to the environmental contaminant 1,1,1-trichloro-2,2-bis-(4-chlorophenyl)-ethane (**p,p'**-**DDT**). Giraudi, Gianfranco; Baggiani, Claudio; Cosmaro, Antonella; Santia, Emilio; Vanni, Adriano (Dipartimento Chimica Analitica, Universita Torino, Turin, I-10125, Italy). Fresenius' Journal of Analytical Chemistry, 360(2), 235-240 (English) 1998. CODEN: FJACES. ISSN: 0937-0633. Publisher: Springer-Verlag.

AB A very selective polyclonal antiserum against 1,1,1-trichloro-2,2-bis-(4-chlorophenyl)-ethane (**p,p'**-**DDT**) was obtained by a careful choice of the haptenic structure (2,2-bis-(4-chlorophenyl)-ethanol hemisuccinate). This hapten was conjugated to BSA to prep. the immunogen. The effects of different types of solid phases on the equil. reaction between the hapten on solid phase and the polyclonal antiserum were evaluated to obtain a fine tuning of the antiserum performances in terms of specificity for **p,p'**-**DDT** and sensitivity to low levels of this pesticide. The calibration curves obtained show that it is possible to set up a sensitive assay for **p,p'**-**DDT**, employing a **p,p'**-dichlorodiphenylacetic acid-based solid phase, with a detection limit of 0.12 ng/mL and a working range of about 0.21-40 ng/mL. Selectivity towards several **p,p'**-**DDT**-related substances was good (o,p-**DDT** 17%, **p,p'**-DDD 1.2%, o,p-DDD 6.3%, **p,p'**-DDE 6.7%).

1997:451833 Document No.: PREV199799751036. Hapten synthesis and production of monoclonal **antibodies** to DDT and related compounds.

Abad, Antonio; Manclus, Juan J.; Mojarrad, Fatemeh; Mercader, Josep V.; Miranda, Miguel A.; Primo, Jaime; Guardiola, Vicente; Montoya, Angel (1). (1) Lab. Integrado Bioingenieria, Universidad Politecnica Valencia, Camino de Vera s/n, 46022 Valencia Spain. Journal of Agricultural and Food Chemistry, (1997) Vol. 45, No. 9, pp. 3694-3702. ISSN: 0021-8561. Language: English.

AB This work describes the production and characterization of monoclonal **antibodies** (MAbs) to the organochlorine insecticide **DDT** and their incorporation into several ELISA configurations. A collection of **DDT** haptens was synthesized by introducing appropriate spacers at two sites of the analyte molecular structure. From mice immunized with hapten-protein **conjugates**, MAbs with I-50 values to p,p'-**DDT** in the 2 - 11 nM range in homologous **conjugate**-coated assays were obtained. According to their cross-reactivity pattern with **DDT** isomers and metabolites, MAbs can be classified as class-specific or **DDT**-specific **antibodies**. Both types of MAbs were obtained from mice immunized with the same hapten-protein **conjugate** simply by applying a different selection criterion in the screening of fusion supernatants. These immunoassays are potentially very valuable analytical tools for the rapid and sensitive determination of **DDT** and congeners in food and the environment and for monitoring human exposure to these ubiquitous and toxic compounds.

1997:443093 Document No.: PREV199799742296. Fiber optic biosensor for cyclodiene insecticides. Brummel, Kathleen E.; Wright, Jeremy (1); Eldefrawi, Mohyee E.. (1) Dep. Biomedicinal Chem., Sch. Pharm., Univ. Maryland Baltimore, 20 North Pine St., Room 500, Baltimore, MD 21201 USA. Journal of Agricultural and Food Chemistry, (1997) Vol. 45, No. 8, pp. 3292-3298. ISSN: 0021-8561. Language: English.

AB Chlorendic caproic acid (CCA) was used to synthesize hexachlorocyclopentadienylfluorescein (FL) and bovine serum albumin (BSA) **conjugates**. Anti-CCA **antibodies** (CCA-Abs), which were raised against BSA-CCA and immobilized on quartz fibers, bound FL-CCA selectively and reversibly. Fluorescence generated by evanescent excitation of the bound FL-CCA was used to monitor the binding event. The affinity of CCA-Abs for FL-CCA ( $K_D = 1.9$  nM) was calculated from the time courses of association and dissociation of FL-CCA. The cyclodiene insecticides chlordane, heptachlor, dieldrin, endrin, aldrin, and endosulfan competed with FL-CCA for binding to CCA-Abs and reduced fluorescence in a concentration-dependent manner with the following rank order: chlordane > heptachlor > dieldrin > aldrin > endosulfan. This fiber optic fluoroimmunosensor detects cyclodiene insecticides at the ppb level, has low cross-reactivity with gamma-hexachlorocyclohexane, and does not detect (p,p'-dichlorodiphenyl)trichloroethane (**DDT**).

90165924 Document Number: 90165924. PubMed ID: 2306239. Preparation and characterization of polyclonal and monoclonal **antibodies** against the insecticide **DDT**. Burgisser D; Frey S; Gutte B; Klauser S. (Biochemisches Institut der Universitat Zurich, Switzerland. ) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1990 Feb 14) 166 (3) 1228-36. Journal code: 0372516. ISSN: 0006-291X. Pub. country: United States. Language: English.

AB A synthetic **DDT** derivative in which the molecular structure of **DDT** was completely retained was coupled to bovine serum albumin. Animals were immunized with the **DDT**-bovine serum albumin **conjugate** and polyclonal and monoclonal **antibodies**

against the insecticide were isolated. These **antibodies** seemed to be the first true anti-DDT **antibodies** and distinguished much better between DDT and DDT metabolites than previously prepared anti-DDT antisera. In competitive solid phase radioimmunoassays, DDT concentrations as low as 10 nM or 0.0035 mg/l were detectable. The anti-DDT **antibodies** can be used for environmental analyses and lend themselves to the elucidation of the structure of the DDT binding site.

L8 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS

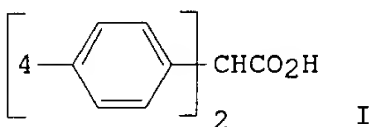
1988:419900 Document No. 109:19900 Immunoassay for sparingly soluble hapten in aqueous samples using hapten-protein **conjugates** as standard. McMahon, Philip L.; Faust, Susan (Agritech Systems, Inc., USA). Eur. Pat. Appl. EP 256551 A2 19880224, 3 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1987-111953 19870818. PRIORITY: US 1986-897984 19860819.

AB In an immunoassay for detn. of a poorly water-sol. hapten, a water-sol. **conjugate** of the hapten with a water-sol. macromol. (mol. wt. >1000) is used as a std. The std. is stable in aq. soln. and therefore need not be stored in an org. solvent or in lyophilized form. Aflatoxin B1 was refluxed with carboxymethylamine-HCl in pyridine-MeOH-H2O (1:4:1), and the oxime product was conjugated with bovine serum albumin in the presence of 1-ethyl-3,3-dimethylaminopropylcarbodiimide. The **conjugate** was used to raise **antibodies** to aflatoxin B1 in rabbits, and was used as a std. in an immunoassay for aflatoxin B1.

L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS

1987:208905 Document No. 106:208905 Development of an enzyme-linked immunosorbent assay for the quantification of DDA (2,2-bis(p-chlorophenyl)acetic acid) in urine. Banerjee, B. D. (Dep. Biochem., Natl. Inst. Commun. Dis., Delhi, 110 054, India). Bull. Environ. Contam. Toxicol., 38(5), 798-804 (English) 1987. CODEN: BECTA6. ISSN: 0007-4861.

GI



AB A major urinary metabolite of DDT [50-29-3], DDA (I) [83-05-6], was detd. in human urine by an ELISA procedure utilizing anti-DDA **antibodies** raised in rabbits injected with DDA-bovine serum albumin **conjugate**. In 11 human volunteers with no known occupational exposure to DDT, the DDA levels ranged from 0.025 to 0.120 .mu.g/mL of urine. Comparison of the ELISA detn. with colorimetric and gas chromatog. anal. showed good agreement among the methods.

L8 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2002 ACS

1984:115102 Document No. 100:115102 Stability problems with urease-steroid **conjugates**. Samake, H.; Rajkowski, K. M.; Cittanova, N. (UER Biomed. Saints-Peres, Univ. Paris-V, Paris, F-75006, Fr.). Dev. Immunol., 18(Immunoenzym. Tech.), 175-8 (English) 1983. CODEN: DEIMD6. ISSN: 0163-5921.

AB The enzymic activity of urease-testosterone **conjugate** was maintained by the presence of 10<sup>-6</sup>-10<sup>-4</sup> M dithiothreitol (DTT) [3483-12-3]. However, in the presence of Ig during an immunoassay, the max. enzyme activity was maintained by 10<sup>-3</sup>M DDT, a concn. which inhibited enzyme activity in the absence of Ig. The **antibody**

binding activity was not affected by **DDT** at the concns. used. The **conjugates** were stable when stored in liq. N, but not at -15.degree.. They also withstood lyophilization following rapid freezing in the presence of casein, lactose, EDTA, and a relatively small amt. of DTT.

L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2002 ACS

1975:166174 Document No. 82:166174 Structural and functional studies of ligandin, a major renal organic anion-binding protein. Kirsch, R.; Fleischner, G.; Kamisaka, K.; Arias, I. M. (Dep. Med., Albert Einstein Coll. Med., Bronx, N. Y., USA). J. Clin. Invest., 55(5), 1009-19 (English) 1975. CODEN: JCINAO.

AB Sephadex gel filtration of the 100,000 g supernate of homogenates of rat kidney revealed binding of various org. anions (penicillin, Bromsulphalein [BSP], bilirubin, phenolsulfonphthalein [PSP], phlorizin, glutathione [GSH], p-amino hippurate (PAH), probenecid, conjugated bilirubin, and BSP-GSH) to a protein fraction (Y), which pptd. on addn. of monospecific anti-rat liver ligandin (Y protein)-IgG. Quant. similar org. anion binding was obsd. in vivo after injection of BSP, BSP-GSH, phlorizin, probenecid, conjugated bilirubin, PAH, or penicillin. The binding protein was purified to apparent homogeneity and is a basic protein (pI 8.9) of 44,000 daltons with 2 subunits of 22,000 daltons. Monospecific **antibody** was produced against the renal protein. The results of binding studies in vivo and in vitro and physicochem., immunol., structural, and binding site investigations indicate that the renal protein is identical to hepatic ligandin. Immunofluorescent studies utilizing antiligandin IgG previously localized ligandin in the kidney to all proximal tubular cells. By quant. radial immunodiffusion, the concn. of renal ligandin was 31 .mu.g/mg supernatant protein and was increased 160% above basal values by pretreatment of rats with tetrachlorodibenzo-p-dioxin. Pretreatment with phenobarbital, **DDT**, or pregnene-16.alpha.-carbonitrile did not increase renal ligandin concn. but doubled hepatic ligandin concn. CD studies of renal ligandin revealed percent helical structure similar to hepatic ligandin and primary assocn. consts. were derived for BSP (106 M-1) and PAH, probenecid, and penicillin (103 M-1). Administration of BSP or probenecid simultaneously with labeled penicillin resulted in increased plasma retention and reduced kidney and urinary bladder content of labeled penicillin and a correlation coeff. of -0.8 between total kidney/plasma radioactivity and percent of protein-bound radioactivity bound to ligandin in the kidney. Renal and hepatic ligandin are apparently identical. Their response to drugs and chemicals varies. Competitive binding between several org. anions for ligandin correlated with their renal uptake from plasma, which suggests that ligandin may function in the proximal tubular cell as a component of the renal org. anion transport system.

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2002 ACS

1975:402009 Document No. 83:2009 Radioimmunoassay for dieldrin and aldrin. Langone, John J.; Van Vunakis, Helen (Dep. Biochem., Brandeis Univ., Waltham, Mass., USA). Res. Commun. Chem. Pathol. Pharmacol., 10(1), 163-71 (English) 1975. CODEN: RCOCB8.

GI For diagram(s), see printed CA Issue.

AB The radioimmunoassay for dieldrin (I) [60-57-1] and aldrin (II) [309-00-2] was carried out using 6,7-dihydro-6-carboxyaldren [5432-00-8] hapten, covalently bound to human serum albumin. The 125I-labeled hapten-tyramine **conjugate** (III) [55032-11-6] was used to prep. labeled antigen. The rabbit was used for **antibody** prodn. (Van Vunakis, H., et al. 1974). The specificity of the **antibodies**, detd. with respect to several other organochlorine insecticides, indicated that much of the binding energy was directed towards the hexachlorobicyclic ring system. **DDT**, decachlorobiphenyl, 2,4,5-T and other insecticides did not interfere with the radioimmunoassay. Picomole levels of I and II were detected by the method.



L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1975:119806 Document No. 82:119806 Conjugation of **DDT** with proteins. Markhvaidze, R. I.; Baldaeva, Z. F.; Speranskii, V. V. (USSR). Mater. Nauchn. Konf., Vost.-Sib. Tekhnol. Inst., Sekts. Khim.-Tekhnol., 11th, Meeting Date 1972, 84-7. Editor(s): Frolov, D. Sh. Buryat. Kn. Izd.: Ulan-Ude, USSR. (Russian) 1973. CODEN: 29MJAC.

GI For diagram(s), see printed CA Issue.

AB A **conjugate** of **DDT** (I) [50-29-3] and proteins was obtained and used for prodn. of immune sera. I was nitrated, aminated, treated with NaNO<sub>2</sub>, and then added to a normal equine serum at pH 8-9.

L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1975:93936 Document No. 82:93936 Immunoprotection in the body during the action of pesticides. Budaeva, R. A.; Speranskii, V. V.; Khundanova, L. L. (USSR). Mater. Nauchn. Konf., Vost.-Sib. Tekhnol. Inst., Sekts. Khim.-Tekhnol., 11th, Meeting Date 1972, 69-73. Editor(s): Frolov, D. Sh. Buryat. Kn. Izd.: Ulan-Ude, USSR. (Russian) 1973. CODEN: 29MJAC.

GI For diagram(s), see printed CA Issue.

AB **Antibodies** and agglutinins to **DDT** (I) [50-29-3] were detected in the blood serum of rats given pure I or tech.-I at 4 mg/kg/day for 60-90 days. The **antibodies** were detected using a **conjugate** of I with a normal equine serum.

L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1970:2502 Document No. 72:2502 **Antibodies** to two common pesticides, **DDT** and malathion. Centeno, E. R.; Johnson, Willard Jesse; Sehon, A. H. (McGill Univ., Montreal, Que., Can.). Int. Arch. Allergy Appl. Immunol., 37(1), 1-13 (English) 1970. CODEN: IAAAAM.

AB **DDT** is degraded in humans to DDA [2,2-bis(p-chlorophenyl)acetic acid]. This metabolite was converted to its acid anhydride and coupled to bovine serum albumin (BSA). The malathion metabolite O,O-di-Me S-(1,2-dicarboxyethyl)phosphorodithioate (MMA) was also converted to the anhydride and coupled to BSA. Immunization of rabbits with these preps. produced **antibodies**, as shown by hemagglutination titers: 8,000-16,000 for the DDA-BSA **conjugate** and 16,400-32,800 for the MMA-BSA **conjugate**, detd. by the bis-diazotized benzidine hemagglutination procedure. The sera of **DDT**-sensitive persons had titers of only 16-128; that of ragweed-sensitive persons was 8-64. These titers are so low that one cannot conclude that man produces many hemagglutinating **antibodies** to **DDT**, although reaginic **antibodies** might be present in the serum. **Conjugates** of pesticides with human serum albumin might be used to skin-test individuals suspected of being **DDT**-sensitive. Localization of DDA and MMA derivs. in tissues might be accomplished with **antibodies** to **DDT** and malathion. Since DDA-BSA and MMA-BSA **conjugates** did not react with antisera to BSA, they are antigenically different from the original carrier proteins.

L8 ANSWER 18 OF 18 MEDLINE  
 69033372 Document Number: 69033372. PubMed ID: 5696781. Production of **antibodies** against insecticide-protein **conjugates**. Haas G J; Guardia E J. PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1968 Nov) 129 (2) 546-51. Journal code: 7505892. ISSN: 0037-9727. Pub. country: United States. Language: English.

=> s "endosulphan"

L9 220 "ENDOSULPHAN"

=> s 19 and antibody

L10 0 L9 AND ANTIBODY

=> s 19 and anti-endosulphan  
L11 0 L9 AND ANTI-ENDOSULPHAN

=> s 19 and hexachlorohexane  
L12 0 L9 AND HEXACHLOROHEXANE

=> s (rani b?/au or pasha a?/au or karanth n?/au or gowda p?/au)  
L13 786 (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)

=> s l13 and DDT  
L14 9 L13 AND DDT

=> s l14 and antibody  
L15 0 L14 AND ANTIBODY

=> dup remove l14  
PROCESSING COMPLETED FOR L14  
L16 5 DUP REMOVE L14 (4 DUPLICATES REMOVED)

=> d l16 1-5 cbib abs

L16 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
2002:540702 Document No.: PREV200200540702. Immunoassay for monitoring  
**DDT** and DDE residues in soil. Harish, R. (1); Shivaramaiah, H. M.  
(1); **Karanth, N. G. K. (1)**. (1) Food Protectants and Infestation  
Control Department, Central Food Technological Research Institute, Mysore,  
570 013 India. Pesticide Research Journal, (June, 2002) Vol. 14, No. 1,  
pp. 08-15. print. ISSN: 0970-6763. Language: English.  
AB Thirteen soil samples spreading over many taluks of Mandya and Mysore  
districts of Karnataka state were collected after **DDT** spray  
program and analyzed for **DDT** and DDE residues using the  
immunoassay and gas liquid chromatography. Data from ELISA indicated 13  
out of 13 samples contained DDE residues, while 8 out of 13 had  
**DDT**. The average concentrations of **DDT** varied from 0.4  
to 4 ppm in soil samples, whereas DDE concentration ranged from 0.06 to  
0.25 ppm. ELISA data correlated well with GC analysis with regression  
coefficient of 0.95.

L16 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS  
2001:770592 Document No. 136:262037 Application of ELISA - a quick, simple,  
inexpensive and sensitive assay method to analyse **DDT** residues  
in grapes. Amitarani; Priya, Chauhan; **Pasha, Akmal;**  
**Karanth, N. G. K.** (Pesticide Residue Analysis and Abatement  
Laboratory Department of FP & IC, CFTRI, Mysore, 570 013, India). Asian  
Journal of Microbiology, Biotechnology & Environmental Sciences, 3(3),  
167-171 (English) 2001. CODEN: AJMBAQ. ISSN: 0972-3005. Publisher:  
Global Science Publications.  
AB Three varieties of grapes available at the local Mysore market were  
analyzed for **DDT** residues by using the ELISA technique developed  
for the first time at CFTRI, India. The study indicated that ELISA could  
detect the **DDT** residues in all the samples. The min. detectable  
level of **DDT** by the ELISA was 8.4 ppb and the IC50 value was  
30-80 ppb. Except for matrix effect in one of the samples no clean up was  
required to analyze the residues in other samples. The study therefore  
indicates that the ELISA method can be used as an inexpensive quick method  
to monitor grapes for pesticide residues. The **DDT** residues were  
found to be far below the min. residue levels -3.5 ppm. (MRL, PFA 1954,  
1999) and thus grapes analyzed are fit for consumption.

L16 ANSWER 3 OF 5 SCISEARCH COPYRIGHT 2002 ISI (R)  
2000:748477 The Genuine Article (R) Number: 358PU. An enzyme immunoassay for  
the organochlorine insecticide hexachlorocyclohexane (HCH), through  
conversion to trichlorophenols. Beasley H L; **Pasha A**; Guihot S

L; Skerritt J H (Reprint). AUSTRALIAN CTR INT AGR RES, GPO BOX 1571, CANBERRA, ACT 2601, AUSTRALIA (Reprint); CSIRO, N RYDE, NSW 1670, AUSTRALIA; CENT FOOD TECHNOL RES INST, FOOD PROTECTANTS & INFESTAT CONTROL DEPT, MYSORE 570013, KARNATAKA, INDIA; CSIRO, CANBERRA, ACT 2601, AUSTRALIA. FOOD AND AGRICULTURAL IMMUNOLOGY (SEP 2000) Vol. 12, No. 3, pp. 203-215. Publisher: CARFAX PUBLISHING. RANKINE RD, BASINGSTOKE RG24 8PR, HANTS, ENGLAND. ISSN: 0954-0105. Pub. country: AUSTRALIA; INDIA. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB A method for immunoassay analysis of the organochlorine insecticide, hexachlorocyclohexane (HCH) has been developed, based upon alkaline conversion in standards and samples to trichlorobenzenes. The trichlorobenzenes were detected through antisera developed to haptens containing either a trichlorobenzene or trichloropyridine moiety, developed using the herbicides, 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and triclopyr, respectively. An enzyme conjugate based on 2,4,5-trichlorophenol provided most sensitive and specific detection. Although the assays cross-reacted with the herbicides, they did not suffer from the major disadvantage of extremely strong cross-reaction with cyclodiene organochlorines reported for a commercial HCH assay. The most sensitive assay had a lower detection limit of 20 mg l<sup>-1</sup> in drinking water and was applied to water and soil matrices.

L16 ANSWER 4 OF 5 MEDLINE DUPLICATE 1  
84136829 Document Number: 84136829. PubMed ID: 6199401. Insecticide fingerprinting technique for detection and location of organochlorine insecticide residues in foods. **Karanth N G**; Srimathi M S; Majumder S K. JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH. PART B: PESTICIDES, FOOD CONTAMINANTS, AND AGRICULTURAL WASTES, (1983 Dec) 18 (6) 745-55. Journal code: 7607167. ISSN: 0360-1234. Pub. country: United States. Language: English.

AB Insecticide fingerprinting technique enables the detection and location of DDT and HCH residues in vegetables through the development of green and prussian blue colors respectively. Cut vegetables are pressed against o-tolidine impregnated paper and exposed to sunlight where colored spots appear instantly. The studies on 18 vegetable varieties revealed the pesticide residues and their distribution in different tissues. This direct method is sensitive (0.3/micrograms for HCH & 0.5/micrograms for DDT) and has special applications in quality control laboratories and food industry.

L16 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2  
1983:18521 Document No.: BR24:18521. A CHROMOGENIC PAPER FOR ULTRA RAPID DETECTION OF ORGANO CHLORINE INSECTICIDE RESIDUES IN VEGETABLES. **KARANTH N G K**; SRIMATHI M S; MAJUMDER S K. DISCIPLINE OF INFESTATION CONTROL AND PESTICIDES, CENTRAL FOOD TECHNOLOGICAL RESEARCH INST. MYSORE 570 013, INDIA.. Bull. Environ. Contam. Toxicol., (1982) 28 (2), 221-224. CODEN: BECTA6. ISSN: 0007-4861. Language: English.

=> sl13 and IgY

SL13 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s l13 adn IgY

MISSING OPERATOR L13 ADN

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> d his

(FILE 'HOME' ENTERED AT 12:04:23 ON 22 OCT 2002)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 12:04:42 ON 22 OCT 2002

```
L1      1303 S IGY
L2      0 S L1 AND ORGANOCHLORINE PESTICIDES
L3      0 S L1 AND DDT
L4      0 S L1 AND "DDT"
L5      50127 S DDT
L6      113 S L5 AND CONJUGATE
L7      27 S L6 AND ANTIBODY
L8      18 DUP REMOVE L7 (9 DUPLICATES REMOVED)
L9      220 S "ENDOSULPHAN"
L10     0 S L9 AND ANTIBODY
L11     0 S L9 AND ANTI-ENDOSULPHAN
L12     0 S L9 AND HEXACHLOROHEXANE
L13     786 S (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)
L14     9 S L13 AND DDT
L15     0 S L14 AND ANTIBODY
L16     5 DUP REMOVE L14 (4 DUPLICATES REMOVED)
```

=> s l13 and anti-DDT

```
L17      0 L13 AND ANTI-DDT
```

=> s l13 and organochlorine insecticides

```
L18      1 L13 AND ORGANOCHLORINE INSECTICIDES
```

=> d l18 cbib abs

```
L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
1982:141288 Document No. 96:141288 A chromogenic paper for ultrarapid
detection of organochlorine insecticide residues in vegetables.
Karanth, N. G. K.; Srimathi, M. S.; Majumder, S. K. (Cent. Food
Technol. Res. Inst., Mysore, 570 013, India). Bull. Environ. Contam.
Toxicol., 28(2), 221-4 (English) 1982. CODEN: BECTA6. ISSN: 0007-4861.
AB A 1% soln. of o-tolidine [119-93-7] in acetone was prepd. and sprayed
uniformly over Whatman No. 1 filter paper disks (18.5 cm) which were then
dried at room temp. and stored in the dark. Different
organochlorine insecticides gave different colored spots
following application to the chromogenic paper and exposure to sunlight
for 1 min. HCH [58-89-9] And DDT [50-29-3] were detected at concns. of
0.3 and 0.5 .mu.g, resp. Several batches of market samples of vegetables
comprising 7 botanical species were analyzed with the chromogenic paper
and results compared well with those obtained by TLC.
```

=> s 1, 1(2,2,2-trichloroethylene) bis (4-chlorobenzene)

MISSING OPERATOR '1, 1(2,2,2-TRIC'

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s hexachlorohexane

```
L19      145 HEXACHLOROHEXANE
```

=> s l19 and antibod?

```
L20      0 L19 AND ANTIBOD?
```

=> s l20 and conjugate

```
L21      0 L20 AND CONJUGATE
```

=> s endosulphan

```
L22      220 ENDOSULPHAN
```

=> s 1220 and IgY  
L220 NOT FOUND  
The L-number entered could not be found. To see the definition  
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 122 and IgY  
L23 0 L22 AND IGY

=> s 122 and antibod?  
L24 0 L22 AND ANTIBOD?

=> d his

(FILE 'HOME' ENTERED AT 12:04:23 ON 22 OCT 2002)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 12:04:42 ON  
22 OCT 2002

L1 1303 S IGY  
L2 0 S L1 AND ORGANOCHLORINE PESTICIDES  
L3 0 S L1 AND DDT  
L4 0 S L1 AND "DDT"  
L5 50127 S DDT  
L6 113 S L5 AND CONJUGATE  
L7 27 S L6 AND ANTIBODY  
L8 18 DUP REMOVE L7 (9 DUPLICATES REMOVED)  
L9 220 S "ENDOSULPHAN"  
L10 0 S L9 AND ANTIBODY  
L11 0 S L9 AND ANTI-ENDOSULPHAN  
L12 0 S L9 AND HEXACHLOROHEXANE  
L13 786 S (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)  
L14 9 S L13 AND DDT  
L15 0 S L14 AND ANTIBODY  
L16 5 DUP REMOVE L14 (4 DUPLICATES REMOVED)  
L17 0 S L13 AND ANTI-DDT  
L18 1 S L13 AND ORGANOCHLORINE INSECTICIDES  
L19 145 S HEXACHLOROHEXANE  
L20 0 S L19 AND ANTIBOD?  
L21 0 S L20 AND CONJUGATE  
L22 220 S ENDOSULPHAN  
L23 0 S L22 AND IGY  
L24 0 S L22 AND ANTIBOD?

=> dup remove l13  
PROCESSING COMPLETED FOR L13  
L25 342 DUP REMOVE L13 (444 DUPLICATES REMOVED)

=> s 125 and antibody  
L26 7 L25 AND ANTIBODY

=> s 126 and IgY  
L27 0 L26 AND IGY

=> d 126 1-7 cbib abs

L26 ANSWER 1 OF 7 MEDLINE  
2002062078 Document Number: 21641296. PubMed ID: 11787493. Reverse  
micellar extraction for downstream processing of proteins/enzymes. Krishna  
S Hari; Srinivas N D; Raghavarao K S M S; **Karant N G.**  
(Department of Fermentation Technology & Bioengineering, Central Food  
Technological Research Institute, Mysore, India.. ferm@cscftri.res.nic.in)  
. ADVANCES IN BIOCHEMICAL ENGINEERING/BIOTECHNOLOGY, (2002) 75 119-83.  
Ref: 351. Journal code: 8307733. ISSN: 0724-6145. Pub. country: Germany:  
Germany, Federal Republic of. Language: English.

AB New developments in the area of downstream processing are, hopefully, to fulfill the promises of modern biotechnology. The traditional separation processes such as chromatography or electrophoresis can become prohibitively expensive unless the product is of high value. Hence, there is a need to develop efficient and cost-effective downstream processing methods. Reverse micellar extraction is one such potential and a promising liquid-liquid extraction technique, which has received immense attention for isolation and purification of proteins/enzymes in the recent times. This technique is easy to scale-up and offers continuous operation. This review, besides briefly considering important physico-chemical and biological aspects, highlights the engineering aspects including mass transfer, mathematical modeling, and technology development. It also discusses recent developments in reverse micellar extraction such as affinity based separations, enzymatic reactions in reverse micelles coupled with membrane processes, reverse micellar extraction in hollow fibers, etc. Special emphasis has been given to some recent applications of this technique.

L26 ANSWER 2 OF 7 MEDLINE

2000231723 Document Number: 20231723. PubMed ID: 10767433. Evidence that the glucoamylases and alpha-amylase secreted by *Aspergillus niger* are proteolytically processed products of a precursor enzyme. Dubey A K; Suresh C; Kavitha R; **Karanth N G**; Umesh-Kumar S. (Department of Food Microbiology, Central Food Technological Research Institute, Mysore, India.. akdubey@cscftri.res.nic.in) . FEBS LETTERS, (2000 Apr 14) 471 (2-3) 251-5. Journal code: 0155157. ISSN: 0014-5793. Pub. country: Netherlands. Language: English.

AB A 125-kDa starch hydrolysing enzyme of *Aspergillus niger* characterised by its ability to dextrinise and saccharify starch [Suresh et al. (1999) Appl. Microbiol. Biotechnol. 51, 673-675] was also found to possess activity towards raw starch. Segregation of these activities in the 71-kDa glucoamylase and a 53-kDa alpha-amylase-like enzyme supported by **antibody** cross-reactivity studies and the isolation of mutants based on assay screens for the secretion of particular enzyme forms revealed the 125-kDa starch hydrolysing enzyme as their precursor. N-terminal sequence analysis further revealed that the 71-kDa glucoamylase was the N-terminal product of the precursor enzyme. Immunological cross reactivity of the 53-kDa amylase with **antibodies** raised against the precursor enzyme but not with the 71- and 61-kDa glucoamylase **antibodies** suggested that this enzyme activity is represented by the C-terminal fragment of the precursor. The N-terminal sequence of the 53-kDa protein showed similarity to the reported Taka amylase of *Aspergillus oryzae*. **Antibody** cross-reactivity to a 10-kDa non-enzymic peptide and a 61-kDa glucoamylase described these proteins as products of the 71-kDa glucoamylase. Identification of only the precursor starch hydrolysing enzyme in the protein extracts of fungal protoplasts suggested proteolytic processing in the cellular periplasmic space as the cause for the secretion of multiple forms of amylases by *A. niger*.

L26 ANSWER 3 OF 7 MEDLINE

1999181768 Document Number: 99181768. PubMed ID: 10084277. The effect of latanoprost and brimonidine on rabbit subconjunctival fibroblasts. Lark K K; **Pasha A S**; Yan X; Edward D P. (Department of Ophthalmology, University of Illinois at Chicago College of Medicine, USA. ) JOURNAL OF GLAUCOMA, (1999 Feb) 8 (1) 72-6. Journal code: 9300903. ISSN: 1057-0829. Pub. country: United States. Language: English.

AB PURPOSE: Subconjunctival fibroblasts play a critical role in scarring and treatment failure in fistulizing surgery for glaucoma. The proliferation of subconjunctival fibroblasts appears to be modulated by topical glaucoma medications. This study was conducted to evaluate the effects of latanoprost and brimonidine on subconjunctival fibroblast proliferation in rabbit eyes. METHODS: Twelve pigmented Dutch-belted rabbits were divided into treatment groups of four: latanoprost 0.005%, brimonidine 0.2%, or

balanced saline solution (BSS) each were administered to one treatment group, both eyes of each rabbit, twice a day, 6 days a week for 10 weeks. The eyes were then enucleated along with the conjunctiva, fixed, processed, and evaluated by light microscopy and immunohistochemistry using anti-proliferating cell nuclear antigen (PCNA) and anti-muscle-specific actin **antibody** (HHF-35). Fibroblast cell counts were performed at magnification x40. RESULTS: In all groups, few inflammatory cells were seen in the subconjunctival space under light microscopy. PCNA staining revealed a statistically significant increase in the mean number of labeled fibroblasts in the group receiving brimonidine compared with the control (BSS) group. The group receiving latanoprost also had a significantly higher mean number of labeled fibroblasts than the groups receiving brimonidine or BSS. Only a few fibroblasts stained positively with the anti HHF **antibody**. Eyes treated with latanoprost, however, had significantly higher numbers of positively labeled cells than eyes treated with brimonidine or BSS. CONCLUSION: When applied to rabbit eyes, latanoprost and brimonidine appear to increase the number of positively labeled proliferating subconjunctival fibroblasts.

L26 ANSWER 4 OF 7 MEDLINE

1999019022 Document Number: 99019022. PubMed ID: 9802214. An enzyme-linked immunosorbent assay for the estimation of fungal biomass during solid-state fermentation. Dubey A K; Suresh C; Kumar S U; **Karanth N G**. (Department of Food Microbiology, Central Food Technological Research Institute, Mysore, India.) APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (1998 Sep) 50 (3) 299-302. Journal code: 8406612. ISSN: 0175-7598. Pub. country: GERMANY: Germany, Federal Republic of. Language: English.

AB An enzyme-linked immunosorbent assay for sensitive, specific and quantitative estimation of fungal biomass during solid-state fermentation is described. Using this method, differential growth rates and colonization of the substrate can be studied. The assay has potential application for the efficient monitoring of solid-state fermentation involving specific fungus, for which available methods are not adequate.

L26 ANSWER 5 OF 7 MEDLINE

95099762 Document Number: 95099762. PubMed ID: 7801530. Relationship between active protection in vaccinated buffaloes against haemorrhagic septicaemia and passive mouse protection test or serum **antibody** titres. Chandrasekaran S; Kennett L; Yeap P C; Muniandy N; **Rani B**; Mukkur T K. (Veterinary Research Institute, Perak, Malaysia.) VETERINARY MICROBIOLOGY, (1994 Aug 15) 41 (4) 303-9. Journal code: 7705469. ISSN: 0378-1135. Pub. country: Netherlands. Language: English.

AB The relationship between the standard passive mouse protection test or serum **antibody** titres measured by indirect haemagglutination or enzyme-linked immunosorbent assays and active protection in buffaloes immunized with different types of haemorrhagic septicaemia bacterins was investigated. Groups of 2-3 buffaloes were immunized with the bacterins currently in use in Asia, viz., broth bacterin (BB), alum precipitated vaccine (APV) and oil adjuvant vaccine (OAV) either subcutaneously (BB, APV) or intramuscularly (OAV) and challenged subcutaneously with virulent organisms at different periods post-immunization. Although the passive mouse protection and indirect haemagglutination tests carried out with the pre-challenge sera from vaccinated buffaloes revealed no relationship with active protection in buffaloes, a relationship was observed between the ELISA **antibody** titres and protection. In contrast, a dose-response relationship was observed between the homologous active and passive mouse protection test.

L26 ANSWER 6 OF 7 MEDLINE

95065543 Document Number: 95065543. PubMed ID: 7975147. Characterization of immune response and duration of protection in buffaloes immunized with haemorrhagic septicaemia vaccines. Chandrasekaran S; Kennett L; Yeap P C;

Muniandy N; **Rani B**; Mukkur T K. (Veterinary Institute, Ipoh, Perak, Malaysia. ) VETERINARY MICROBIOLOGY, (1994 Aug 1) 41 (3) 213-9. Journal code: 7705469. ISSN: 0378-1135. Pub. country: Netherlands. Language: English.

- AB Two of the three buffaloes immunized with a non-adjuvanted broth bacterin were found to be protected against experimental challenge at 6 weeks but not at 3 months post-challenge. Similarly all buffaloes (4/4) immunized with alum-precipitated vaccine were protected at 6 months but only 1 of the 2 vaccinated animals were protected at 12 months post-immunization. On the other hand, buffaloes immunized with an oil adjuvant and a double emulsion vaccine were completely protected at 12 months post-immunization. Statistically significant differences between immunized versus non-immune animals became evident at 3 months post-immunization, although analysis of cumulative **antibody** titres of pre-challenge sera of vaccinated buffaloes surviving versus those succumbing to experimental challenge revealed significant by higher **antibody** titres in the former as compared to the latter group. These results suggested that there was a relationship between ELISA **antibody** titres and active protection in buffaloes. There also appeared to be a relationship between cutaneous delayed-type hypersensitivity and active protection in buffaloes. Preliminary analysis of the **antibody** isotype distribution in the pre-challenge sera of 2 buffaloes vaccinated with the oil adjuvant vaccine revealed predominance of IgG1 and IgG2 subclasses whose role in protection against haemorrhagic septicaemia was not elucidated.

L26 ANSWER 7 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)  
96:330743 The Genuine Article (R) Number: BF24E. DETECTION AND REMOVAL OF SAMPLE MATRIX EFFECTS IN AGROCHEMICAL IMMUNOASSAYS. SKERRITT J H (Reprint); **RANI B E A**. CSIRO, DIV PLANT IND, CANBERRA, ACT 2601, AUSTRALIA (Reprint); CENT FOOD TECHNOL RES INST, MYSORE 570013, KARNATAKA, INDIA. ACS SYMPOSIUM SERIES (1996) Vol. 621, pp. 29-43. ISSN: 0097-6156. Pub. country: AUSTRALIA; INDIA. Language: ENGLISH.  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

- AB With the completion of the initial development of assays for many of the most important agrochemicals, there has been an increased focus on actual applications of agrochemical immunoassays to food and environmental matrices. A major prerequisite to assay utilization has been the need to identify and remove matrix interferences, which may result in: 1. residue-free samples appearing positive, or else samples containing residues appearing negative; or 2. changes in the sensitivity of residue detection, from either or both shifts in the assay absorbance values in the absence of pesticide or in the standard curve. Matrix effects are best detected by analysis of spikes of pesticide standards into a solvent extract of pesticide-free matrix and comparison of this concentration-response curve with that obtained using standards prepared in solvent alone. A number of approaches to the removal of matrix interference is reviewed, with particular reference to examples from the analyses of insecticide residues in plant-derived foods, including grain and fruit products.

=>

=>

Executing the logoff script...

=> LOG H



Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:  
SSSPTA1644PNH  
LOGINID:  
PASSWORD:  
TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
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NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
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L4 0 L1 AND "DDT"

=> s DDT  
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L6 113 L5 AND CONJUGATE

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L8 ANSWER 1 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)

2002:54138 The Genuine Article (R) Number: 508FT. Synthesis of haptens and protein **conjugates** for the development of immunoassays for the insect growth regulator fenoxycarb. Szurdoki F; Szekacs A; Le H M; Hammock B D (Reprint). Univ Calif Davis, Dept Entomol, 1 Shields Ave, Davis, CA 95616 USA (Reprint); Univ Calif Davis, Dept Entomol, Davis, CA 95616 USA; Univ Calif Davis, Canc Res Ctr, Davis, CA 95616 USA; Hungarian Acad Sci, Inst Plant Protect, H-1525 Budapest, Hungary. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (2 JAN 2002) Vol. 50, No. 1, pp. 29-40. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036 USA. ISSN: 0021-8561. Pub. country: USA; Hungary. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Sensitive and selective enzyme-linked immunosorbent assays (ELISAs) in the immobilized antigen format were developed for fenoxycarb (1), an insect growth regulator (IGR). The parent molecule [ethyl 2-(4-phenoxyphenoxy)ethylcarbamate] was derivatized at several positions to obtain haptens (2-5) that were used to produce protein **conjugates** and rabbit polyclonal antisera. Amino derivatives of fenoxycarb at the terminal and internal rings (2 and 3, respectively) were linked to carrier proteins by azo coupling. Carboxyalkyl-spacer groups were attached to the ethyl group and the nitrogen atom of the target compound (1) to obtain haptens 4 and 5, respectively. Hapten-homologous ELISAs based on protein **conjugates** of compounds 2 and 4 determined fenoxycarb in the mid-ppb range (IC<sub>50</sub>, 102 and 95 ppb, respectively). A more sensitive hapten-heterologous ELISA (IC<sub>50</sub>, 17 ppb; detection limit 0.5 ppb) involved the antiserum raised against a **conjugate** of hapten 2 and the plate-coating antigen obtained from compound 3. These assays displayed no significant interferences with photodegradation products of fenoxycarb, the IGRs methoprene and pyriproxyfen, and a variety of pesticides including the pyrethroids fenvalerate and cypermethryn, the phenoxyacetic acid herbicide 2,4-D, DDT, and the nitrodiphenyl ether herbicides acifluorfen and fluoro-difen.

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2002 ACS

2001:197060 Simple monoclonal-based approach for the multianalyte immunoassay of pesticides. Montoya, Angel; Abad, Antonio; Moreno, Maria J.; Mancus, Juan J.; Mercader, Josep V. (Laboratorio Integrado de Bioingenieria, Universidad Politecnica de Valencia, Valencia, 46022, Spain). Abstr. Pap. - Am. Chem. Soc., 221st, AGRO-098 (English) 2001. CODEN: ACSRAL. ISSN: 0065-7727. Publisher: American Chemical Society.

AB Enzyme immunoassays (ELISAs) are already recognized as simple, cost-effective and sensitive anal. methods for the detn. of a variety of individual pesticides. However, multiresidue methods are undoubtedly preferred over single residue methods for pesticide residue monitoring. With the aim of contributing to a broadest acceptance of immunoassays as routine methods in the pesticide anal. labs., the development of multianalyte ELISAs was undertaken. Using the **conjugate**-coated ELISA format, a simple approach was followed consisting of the use of a controlled mixt. of monoclonal **antibodies** (MAbs) as the single primary immunoreagent. Each MAb is specific for a certain pesticide, whereas the ability to identify and quantify individual analytes is obtained by immobilizing different coating **conjugates** into different wells of the ELISA plate. Multianalyte ELISAs could extend the traditional concept of multiresidue methods, since they can be developed to simultaneously analyze the presence of several pesticides from different chem. families and, therefore, with different physico-chem. characteristics. This way, the use of a specific instrumental technique

for each analyte could be avoided, with the subsequent saving of cost and labour. Table 1 shows a summary of the main anal. characteristics of the multianalyte ELISAs developed following this strategy. Table 1. Pesticide Multianalyte Immunoassays Developed at the Laboratorio Integrado de Bioingenieria. Pesticide family Compd. LOD (ng/mL) Calibration Points (ng/mL)

Pesticide family	Compd.	LOD (ng/mL)	Calibration Points (ng/mL)
N-methylcarbamates	Carbaryl	0.2	0.2 0.8 4.0
	Carbofuran	0.4	0.4 1.6 8.0
	Methiocarb	0.1	0.1 0.4 2.0
	Propoxur	0.8	0.8 3.2 8.0
	Bendiocarb	0.2	0.2 0.8 2.0
Organophosphorus	Chlorpyrifos	1.0	1.0 3.0 10.0
	Azinphos	0.1	0.1 0.3 1.0
	TCP metabolite	0.1	0.1 0.3 1.0
	Chlorinated		
DDT group		1.0	1.0 3.0 10.0
	Cyclodiene group	5.0	5.0 15.0 50.0
	Combined Carbaryl	0.25	0.25 1.0 4.0
	Chlorpyrifos	0.75	0.75 3.0 12.0
	Thiabendazole	0.25	0.25 1.0 4.0

L8 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2002 ACS

2002:409435 Document No. 137:196870 Screening of environmental samples for an estrogenic pollutant: **DDT**. Graham, L.; Campbell, M. (Cooperative Research Programs, Lincoln University, Jefferson City, MO, 65109, USA). Proceedings of the Conference on Environmental Research: New Approaches to Managing Environmental Quality in the Heartland, Manhattan, KS, United States, May 21-24, 2001, Meeting Date 2001, 27-31. Editor(s): Erickson, Larry E.; Rankin, Mary M. Great Plains/Rocky Mountain Hazardous Substance Research Center, Kansas State University: Manhattan, Kans. (English) 2001. CODEN: 69CQN6.

AB Soil samples from 3 farm communities in southeast Missouri were analyzed for dichlorodiphenyltrichloroethane (**DDT**) and its metabolites, using a **DDT** test kit. The soil test kit is based on the use of polyclonal **antibodies** that bind either **DDT** or a **DDT-enzyme conjugate**. The same nos. of **antibodies** are immobilized to the walls of the test tubes. When **DDT** is present in samples, it competes with the **DDT-enzyme conjugate** for a limited no. of **antibody**-binding sites. The presence of **DDT** is detd. by a colorimetric reaction in the test tubes that yields a blue soln. Based on the binding of the **DDT** mols., a low concn. of **DDT** produces a dark blue soln., and conversely, a high concn. of **DDT** allows fewer **DDT-enzyme conjugate** mols. to be bound to the **antibodies**, resulting in a lighter blue soln. MeOH exts. of 11 soil samples were tested. Nine of the samples showed a level of 0.2 ppm or greater of p'-**DDT**. Only 2 samples had levels <0.2 ppm.

L8 ANSWER 4 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)

1999:237611 The Genuine Article (R) Number: 177TN. Development of monoclonal ELISAs for azinphos-methyl. 1. Hapten synthesis and **antibody** production. Mercader J V; Montoya A (Reprint). UNIV POLITECN VALENCIA, LAB INTEGRAT BIOENGINYERIA, CAMI DE VERA S-N, E-46022 VALENCIA, SPAIN (Reprint); UNIV POLITECN VALENCIA, LAB INTEGRAT BIOENGINYERIA, E-46022 VALENCIA, SPAIN. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (MAR 1999) Vol. 47, No. 3, pp. 1276-1284. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036. ISSN: 0021-8561. Pub. country: SPAIN. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The development of monoclonal **antibody**-based enzyme-linked immunosorbent assays for azinphosmethyl is described. A panel of haptens was synthesized for immunoconjugate preparation, and a series of haptens for heterologous, coating or tracer, **conjugates** was also prepared. Hapten synthesis was based on a strategy in which only a fragment of the whole target molecule was present (fragmentary haptens). From immunized mice, a set of monoclonal **antibodies** was obtained and ELISA sensitivities were assayed in different formats. Affinities estimated as I-50 values in the low nanomolar range for azinphos-methyl and phosmet were observed for several monoclonal **antibodies** in

the **conjugate**-coated format and in the **antibody**-coated format under nonoptimized assay conditions.

L8 ANSWER 5 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
1

1998:409803 Document No.: PREV199800409803. Development of a panel of immunoassays for monitoring **DDT**, its metabolites, and analogues in food and environmental matrices. Beasley, Helen L.; Phongkham, Thipsavanh; Daunt, Margaret H.; Guihot, Simone L.; Skerritt, John H. (1). (1) CSIRO Plant Industry, G.P.O. Box 1600, Canberra, ACT 2601 Australia. Journal of Agricultural and Food Chemistry, (Aug., 1998) Vol. 46, No. 8, pp. 3339-3352. ISSN: 0021-8561. Language: English.

AB A panel of antisera was prepared using analogues and derivatives of metabolites of the organochlorine insecticide, **p,p'**-**DDT** as haptens. The assays developed exhibited differing cross-reactions for different **DDT** analogues and metabolites, and the choice of hapten for the detecting enzyme **conjugate** had almost as much effect on assay specificity and sensitivity as the structure of the hapten used for **antibody** production. Those assays developed using hapten 1, based on esters of bis(*p*-chlorophenyl)acetic acid (DDA), typically detected DDA with greater sensitivity than **p,p'**-**DDT** or **p,p'**-DDE. The most sensitive assay for **p,p'**-**DDT** (lower limit of detection of 0.3 mug/L) was obtained using an immunogen based on bis(*p*-chlorophenyl)ethanol (hapten IV), although a significant crossreaction with dichlorodiphenyltrichloroethane (DDD) and DDE was obtained. The most specific assay for **p,p'**-**DDT** was obtained using an immunogen (hapten VI) that includes all elements of the **DDT** structure, except that one of the *p*-chloro groups was replaced by beta-alanine carboxamide for coupling to carrier proteins. **Antibodies** based on a similar DDE hapten (V) exhibited specificity for **p,p'**-DDE over **p,p'**-**DDT**. Greater specificity and sensitivity for dicofol were obtained by using an immunogen derived from ester hydrolysis of chlorbenzilate (hapten II). The assays provided methods for detection of **p,p'**-**DDT** plus **p,p'**-DDE either by using the **antibody** raised to hapten TV with **conjugate** based on hapten rb or by using the assay based on hapten V, with treatment of samples with warm alcoholic KOH, which converted **DDT** to DDE. Some of the immunoassays were applied to the detection of **DDT** and DDE in water, soil, and selected foods.

L8 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2002 ACS

1998:73885 Document No. 128:177817 A highly specific polyclonal antiserum to the environmental contaminant 1,1,1-trichloro-2,2-bis-(4-chlorophenyl)-ethane (**p,p'**-**DDT**). Giraudi, Gianfranco; Baggiani, Claudio; Cosmaro, Antonella; Santia, Emilio; Vanni, Adriano (Dipartimento Chimica Analitica, Universita Torino, Turin, I-10125, Italy). Fresenius' Journal of Analytical Chemistry, 360(2), 235-240 (English) 1998. CODEN: FJACES. ISSN: 0937-0633. Publisher: Springer-Verlag.

AB A very selective polyclonal antiserum against 1,1,1-trichloro-2,2-bis-(4-chlorophenyl)-ethane (**p,p'**-**DDT**) was obtained by a careful choice of the haptenic structure (2,2-bis-(4-chlorophenyl)-ethanol hemisuccinate). This hapten was conjugated to BSA to prep. the immunogen. The effects of different types of solid phases on the equil. reaction between the hapten on solid phase and the polyclonal antiserum were evaluated to obtain a fine tuning of the antiserum performances in terms of specificity for **p,p'**-**DDT** and sensitivity to low levels of this pesticide. The calibration curves obtained show that it is possible to set up a sensitive assay for **p,p'**-**DDT**, employing a **p,p'**-dichlorodiphenylacetic acid-based solid phase, with a detection limit of 0.12 ng/mL and a working range of about 0.21-40 ng/mL. Selectivity towards several **p,p'**-**DDT**-related substances was good (**p,p'**-**DDT** 17%, **p,p'**-DDD 1.2%, **p,p'**-DDD 6.3%, **p,p'**-DDE 6.7%).

- L8 ANSWER 7 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
2
- 1997:451833 Document No.: PREV199799751036. Hapten synthesis and production of monoclonal **antibodies** to **DDT** and related compounds.  
Abad, Antonio; Manclus, Juan J.; Mojarrad, Fatemeh; Mercader, Josep V.; Miranda, Miguel A.; Primo, Jaime; Guardiola, Vicente; Montoya, Angel (1).  
(1) Lab. Integrado Bioingenieria, Universidad Politecnica Valencia, Camino de Vera s/n, 46022 Valencia Spain. Journal of Agricultural and Food Chemistry, (1997) Vol. 45, No. 9, pp. 3694-3702. ISSN: 0021-8561.  
Language: English.
- AB This work describes the production and characterization of monoclonal **antibodies** (MAbs) to the organochlorine insecticide **DDT** and their incorporation into several ELISA configurations. A collection of **DDT** haptens was synthesized by introducing appropriate spacers at two sites of the analyte molecular structure. From mice immunized with hapten-protein **conjugates**, MAbs with I-50 values to p,p'-**DDT** in the 2 - 11 nM range in homologous **conjugate**-coated assays were obtained. According to their cross-reactivity pattern with **DDT** isomers and metabolites, MAbs can be classified as class-specific or **DDT**-specific **antibodies**. Both types of MAbs were obtained from mice immunized with the same hapten-protein **conjugate** simply by applying a different selection criterion in the screening of fusion supernatants. These immunoassays are potentially very valuable analytical tools for the rapid and sensitive determination of **DDT** and congeners in food and the environment and for monitoring human exposure to these ubiquitous and toxic compounds.
- L8 ANSWER 8 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
3
- 1997:443093 Document No.: PREV199799742296. Fiber optic biosensor for cyclodiene insecticides. Brummel, Kathleen E.; Wright, Jeremy (1); Eldefrawi, Mohyee E.. (1) Dep. Biomedical Chem., Sch. Pharm., Univ. Maryland Baltimore, 20 North Pine St., Room 500, Baltimore, MD 21201 USA. Journal of Agricultural and Food Chemistry, (1997) Vol. 45, No. 8, pp. 3292-3298. ISSN: 0021-8561. Language: English.
- AB Chlorendic caproic acid (CCA) was used to synthesize hexachlorocyclopentadienylfluorescein (FL) and bovine serum albumin (BSA) **conjugates**. Anti-CCA **antibodies** (CCA-Abs), which were raised against BSA-CCA and immobilized on quartz fibers, bound FL-CCA selectively and reversibly. Fluorescence generated by evanescent excitation of the bound FL-CCA was used to monitor the binding event. The affinity of CCA-Abs for FL-CCA (K-D = 1.9 nM) was calculated from the time courses of association and dissociation of FL-CCA. The cyclodiene insecticides chlordane, heptachlor, dieldrin, endrin, aldrin, and endosulfan competed with FL-CCA for binding to CCA-Abs and reduced fluorescence in a concentration-dependent manner with the following rank order: chlordane gt heptachlor gt dieldrin gt aldrin gt endosulfan. This fiber optic fluoroimmunosensor detects cyclodiene insecticides at the ppb level, has low cross-reactivity with gamma-hexachlorocyclohexane, and does not detect (p,p'-dichlorodiphenyl)trichloroethane (**DDT**).
- L8 ANSWER 9 OF 18 MEDLINE DUPLICATE 4
- 90165924 Document Number: 90165924. PubMed ID: 2306239. Preparation and characterization of polyclonal and monoclonal **antibodies** against the insecticide **DDT**. Burgisser D; Frey S; Gutte B; Klauser S. (Biochemisches Institut der Universitat Zurich, Switzerland. ) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1990 Feb 14) 166 (3) 1228-36. Journal code: 0372516. ISSN: 0006-291X. Pub. country: United States. Language: English.
- AB A synthetic **DDT** derivative in which the molecular structure of **DDT** was completely retained was coupled to bovine serum albumin. Animals were immunized with the **DDT**-bovine serum albumin **conjugate** and polyclonal and monoclonal **antibodies**

against the insecticide were isolated. These **antibodies** seemed to be the first true anti-DDT **antibodies** and distinguished much better between DDT and DDT metabolites than previously prepared anti-DDT antisera. In competitive solid phase radioimmunoassays, DDT concentrations as low as 10 nM or 0.0035 mg/l were detectable. The anti-DDT **antibodies** can be used for environmental analyses and lend themselves to the elucidation of the structure of the DDT binding site.

L8 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS

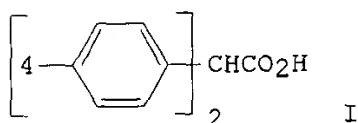
1988:419900 Document No. 109:19900 Immunoassay for sparingly soluble hapten in aqueous samples using hapten-protein **conjugates** as standard. McMahon, Philip L.; Faust, Susan (Agritech Systems, Inc., USA). Eur. Pat. Appl. EP 256551 A2 19880224, 3 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1987-111953 19870818. PRIORITY: US 1986-897984 19860819.

AB In an immunoassay for detn. of a poorly water-sol. hapten, a water-sol. **conjugate** of the hapten with a water-sol. macromol. (mol. wt. >1000) is used as a std. The std. is stable in aq. soln. and therefore need not be stored in an org. solvent or in lyophilized form. Aflatoxin B1 was refluxed with carboxymethylamine-HCl in pyridine-MeOH-H2O (1:4:1), and the oxime product was conjugated with bovine serum albumin in the presence of 1-ethyl-3,3-dimethylaminopropylcarbodiimide. The **conjugate** was used to raise **antibodies** to aflatoxin B1 in rabbits, and was used as a std. in an immunoassay for aflatoxin B1.

L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS

1987:208905 Document No. 106:208905 Development of an enzyme-linked immunosorbent assay for the quantification of DDA (2,2-bis(p-chlorophenyl)acetic acid) in urine. Banerjee, B. D. (Dep. Biochem., Natl. Inst. Commun. Dis., Delhi, 110 054, India). Bull. Environ. Contam. Toxicol., 38(5), 798-804 (English) 1987. CODEN: BECTA6. ISSN: 0007-4861.

GI



AB A major urinary metabolite of DDT [50-29-3], DDA (I) [83-05-6], was detd. in human urine by an ELISA procedure utilizing anti-DDA **antibodies** raised in rabbits injected with DDA-bovine serum albumin **conjugate**. In 11 human volunteers with no known occupational exposure to DDT, the DDA levels ranged from 0.025 to 0.120 .mu.g/mL of urine. Comparison of the ELISA detn. with colorimetric and gas chromatog. anal. showed good agreement among the methods.

L8 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2002 ACS

1984:115102 Document No. 100:115102 Stability problems with urease-steroid **conjugates**. Samake, H.; Rajkowski, K. M.; Cittanova, N. (UER Biomed. Saints-Peres, Univ. Paris-V, Paris, F-75006, Fr.). Dev. Immunol., 18(Immunoenzym. Tech.), 175-8 (English) 1983. CODEN: DEIMD6. ISSN: 0163-5921.

AB The enzymic activity of urease-testosterone **conjugate** was maintained by the presence of 10<sup>-6</sup>-10<sup>-4</sup> M dithiothreitol (DTT) [3483-12-3]. However, in the presence of Ig during an immunoassay, the max. enzyme activity was maintained by 10<sup>-3</sup>M DDT, a concn. which inhibited enzyme activity in the absence of Ig. The **antibody**

binding activity was not affected by **DDT** at the concns. used. The **conjugates** were stable when stored in liq. N, but not at -15.degree.. They also withstood lyophilization following rapid freezing in the presence of casein, lactose, EDTA, and a relatively small amt. of DTT.

L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2002 ACS

1975:166174 Document No. 82:166174 Structural and functional studies of ligandin, a major renal organic anion-binding protein. Kirsch, R.; Fleischner, G.; Kamisaka, K.; Arias, I. M. (Dep. Med., Albert Einstein Coll. Med., Bronx, N. Y., USA). J. Clin. Invest., 55(5), 1009-19 (English) 1975. CODEN: JCINAO.

AB Sephadex gel filtration of the 100,000 g supernate of homogenates of rat kidney revealed binding of various org. anions (penicillin, Bromsulphalein [BSP], bilirubin, phenolsulfonphthalein [PSP], phlorizin, glutathione [GSH], p-amino hippurate (PAH), probenecid, conjugated bilirubin, and BSP-GSH) to a protein fraction (Y), which pptd. on addn. of monospecific anti-rat liver ligandin (Y protein)-IgG. Quant. similar org. anion binding was obsd. in vivo after injection of BSP, BSP-GSH, phlorizin, probenecid, conjugated bilirubin, PAH, or penicillin. The binding protein was purified to apparent homogeneity and is a basic protein (pI 8.9) of 44,000 daltons with 2 subunits of 22,000 daltons. Monospecific **antibody** was produced against the renal protein. The results of binding studies in vivo and in vitro and physicochem., immunol., structural, and binding site investigations indicate that the renal protein is identical to hepatic ligandin. Immunofluorescent studies utilizing antiligandin IgG previously localized ligandin in the kidney to all proximal tubular cells. By quant. radial immunodiffusion, the concn. of renal ligandin was 31 .mu.g/mg supernatant protein and was increased 160% above basal values by pretreatment of rats with tetrachlorodibenzo-p-dioxin. Pretreatment with phenobarbital, **DDT**, or pregnene-16.alpha.-carbonitrile did not increase renal ligandin concn. but doubled hepatic ligandin concn. CD studies of renal ligandin revealed percent helical structure similar to hepatic ligandin and primary assocn. consts. were derived for BSP (106 M-1) and PAH, probenecid, and penicillin (103 M-1). Administration of BSP or probenecid simultaneously with labeled penicillin resulted in increased plasma retention and reduced kidney and urinary bladder content of labeled penicillin and a correlation coeff. of -0.8 between total kidney/plasma radioactivity and percent of protein-bound radioactivity bound to ligandin in the kidney. Renal and hepatic ligandin are apparently identical. Their response to drugs and chemicals varies. Competitive binding between several org. anions for ligandin correlated with their renal uptake from plasma, which suggests that ligandin may function in the proximal tubular cell as a component of the renal org. anion transport system.

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2002 ACS

1975:402009 Document No. 83:2009 Radioimmunoassay for dieldrin and aldrin. Langone, John J.; Van Vunakis, Helen (Dep. Biochem., Brandeis Univ., Waltham, Mass., USA). Res. Commun. Chem. Pathol. Pharmacol., 10(1), 163-71 (English) 1975. CODEN: RCOCB8.

GI For diagram(s), see printed CA Issue.

AB The radioimmunoassay for dieldrin (I) [60-57-1] and aldrin (II) [309-00-2] was carried out using 6,7-dihydro-6-carboxyaldren [5432-00-8] hapten, covalently bound to human serum albumin. The 125I-labeled hapten-tyramine **conjugate** (III) [55032-11-6] was used to prep. labeled antigen. The rabbit was used for **antibody** prodn. (Van Vunakis, H., et al. 1974). The specificity of the **antibodies**, detd. with respect to several other organochlorine insecticides, indicated that much of the binding energy was directed towards the hexachlorobicyclic ring system. **DDT**, decachlorobiphenyl, 2,4,5-T and other insecticides did not interfere with the radioimmunoassay. Picomole levels of I and II were detected by the method.



- L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1975:119806 Document No. 82:119806 Conjugation of **DDT** with proteins. Markhvaidze, R. I.; Baldaeva, Z. F.; Speranskii, V. V. (USSR). Mater. Nauchn. Konf., Vost.-Sib. Tekhnol. Inst., Sekts. Khim.-Tekhnol., 11th, Meeting Date 1972, 84-7. Editor(s): Frolov, D. Sh. Buryat. Kn. Izd.: Ulan-Ude, USSR. (Russian) 1973. CODEN: 29MJAC.
- GI For diagram(s), see printed CA Issue.
- AB A **conjugate** of **DDT** (I) [50-29-3] and proteins was obtained and used for prodn. of immune sera. I was nitrated, aminated, treated with NaNO<sub>2</sub>, and then added to a normal equine serum at pH 8-9.
- L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1975:93936 Document No. 82:93936 Immunoprotection in the body during the action of pesticides. Budaeva, R. A.; Speranskii, V. V.; Khundanova, L. L. (USSR). Mater. Nauchn. Konf., Vost.-Sib. Tekhnol. Inst., Sekts. Khim.-Tekhnol., 11th, Meeting Date 1972, 69-73. Editor(s): Frolov, D. Sh. Buryat. Kn. Izd.: Ulan-Ude, USSR. (Russian) 1973. CODEN: 29MJAC.
- GI For diagram(s), see printed CA Issue.
- AB **Antibodies** and agglutinins to **DDT** (I) [50-29-3] were detected in the blood serum of rats given pure I or tech.-I at 4 mg/kg/day for 60-90 days. The **antibodies** were detected using a **conjugate** of I with a normal equine serum.
- L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2002 ACS  
 1970:2502 Document No. 72:2502 **Antibodies** to two common pesticides, **DDT** and malathion. Centeno, E. R.; Johnson, Willard Jesse; Sehon, A. H. (McGill Univ., Montreal, Que., Can.). Int. Arch. Allergy Appl. Immunol., 37(1), 1-13 (English) 1970. CODEN: IAAAAM.
- AB **DDT** is degraded in humans to DDA [2,2-bis(p-chlorophenyl)acetic acid]. This metabolite was converted to its acid anhydride and coupled to bovine serum albumin (BSA). The malathion metabolite O,O-di-Me S-(1,2-dicarboxyethyl)phosphorodithioate (MMA) was also converted to the anhydride and coupled to BSA. Immunization of rabbits with these preps. produced **antibodies**, as shown by hemagglutination titers: 8,000-16,000 for the DDA-BSA **conjugate** and 16,400-32,800 for the MMA-BSA **conjugate**, detd. by the bis-diazotized benzidine hemagglutination procedure. The sera of **DDT**-sensitive persons had titers of only 16-128; that of ragweed-sensitive persons was 8-64. These titers are so low that one cannot conclude that man produces many hemagglutinating **antibodies** to **DDT**, although reaginic **antibodies** might be present in the serum. **Conjugates** of pesticides with human serum albumin might be used to skin-test individuals suspected of being **DDT**-sensitive. Localization of DDA and MMA derivs. in tissues might be accomplished with **antibodies** to **DDT** and malathion. Since DDA-BSA and MMA-BSA **conjugates** did not react with antisera to BSA, they are antigenically different from the original carrier proteins.
- L8 ANSWER 18 OF 18 MEDLINE  
 69033372 Document Number: 69033372. PubMed ID: 5696781. Production of **antibodies** against insecticide-protein **conjugates**. Haas G J; Guardia E J. PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE, (1968 Nov) 129 (2) 546-51. Journal code: 7505892. ISSN: 0037-9727. Pub. country: United States. Language: English.

=> s "endosulphan"

L9 220 "ENDOSULPHAN"

=> s l9 and antibody

L10 0 L9 AND ANTIBODY

=> s 19 and anti-endosulphan  
L11 0 L9 AND ANTI-ENDOSULPHAN

=> s 19 and hexachlorohexane  
L12 0 L9 AND HEXACHLOROHEXANE

=> s (rani b?/au or pasha a?/au or karanth n?/au or gowda p?/au)  
L13 786 (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)

=> s 113 and DDT  
L14 9 L13 AND DDT

=> s 114 and antibody  
L15 0 L14 AND ANTIBODY

=> dup remove 114  
PROCESSING COMPLETED FOR L14  
L16 5 DUP REMOVE L14 (4 DUPLICATES REMOVED)

=> d 116 1-5 cbib abs

L16 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
2002:540702 Document No.: PREV200200540702. Immunoassay for monitoring  
**DDT** and DDE residues in soil. Harish, R. (1); Shivaramaiah, H. M.  
(1); **Karanth, N. G. K. (1)**. (1) Food Protectants and Infestation  
Control Department, Central Food Technological Research Institute, Mysore,  
570 013 India. Pesticide Research Journal, (June, 2002) Vol. 14, No. 1,  
pp. 08-15. print. ISSN: 0970-6763. Language: English.  
AB Thirteen soil samples spreading over many taluks of Mandya and Mysore  
districts of Karnataka state were collected after **DDT** spray  
program and analyzed for **DDT** and DDE residues using the  
immunoassay and gas liquid chromatography. Data from ELISA indicated 13  
out of 13 samples contained DDE residues, while 8 out of 13 had  
**DDT**. The average concentrations of **DDT** varied from 0.4  
to 4 ppm in soil samples, whereas DDE concentration ranged from 0.06 to  
0.25 ppm. ELISA data correlated well with GC analysis with regression  
coefficient of 0.95.

L16 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS  
2001:770592 Document No. 136:262037 Application of ELISA - a quick, simple,  
inexpensive and sensitive assay method to analyse **DDT** residues  
in grapes. Amitarani; Priya, Chauhan; **Pasha, Akmal;**  
**Karanth, N. G. K.** (Pesticide Residue Analysis and Abatement  
Laboratory Department of FP & IC, CFTRI, Mysore, 570 013, India). Asian  
Journal of Microbiology, Biotechnology & Environmental Sciences, 3(3),  
167-171 (English) 2001. CODEN: AJMBAQ. ISSN: 0972-3005. Publisher:  
Global Science Publications.  
AB Three varieties of grapes available at the local Mysore market were  
analyzed for **DDT** residues by using the ELISA technique developed  
for the first time at CFTRI, India. The study indicated that ELISA could  
detect the **DDT** residues in all the samples. The min. detectable  
level of **DDT** by the ELISA was 8.4 ppb and the IC50 value was  
30-80 ppb. Except for matrix effect in one of the samples no clean up was  
required to analyze the residues in other samples. The study therefore  
indicates that the ELISA method can be used as an inexpensive quick method  
to monitor grapes for pesticide residues. The **DDT** residues were  
found to be far below the min. residue levels -3.5 ppm. (MRL, PFA 1954,  
1999) and thus grapes analyzed are fit for consumption.

L16 ANSWER 3 OF 5 SCISEARCH COPYRIGHT 2002 ISI (R)  
2000:748477 The Genuine Article (R) Number: 358PU. An enzyme immunoassay for  
the organochlorine insecticide hexachlorocyclohexane (HCH), through  
conversion to trichlorophenols. Beasley H L; **Pasha A**; Guihot S

L; Skerritt J H (Reprint). AUSTRALIAN CTR INT AGR RES, GPO BOX 1571, CANBERRA, ACT 2601, AUSTRALIA (Reprint); CSIRO, N RYDE, NSW 1670, AUSTRALIA; CENT FOOD TECHNOL RES INST, FOOD PROTECTANTS & INFESTAT CONTROL DEPT, MYSORE 570013, KARNATAKA, INDIA; CSIRO, CANBERRA, ACT 2601, AUSTRALIA. FOOD AND AGRICULTURAL IMMUNOLOGY (SEP 2000) Vol. 12, No. 3, pp. 203-215. Publisher: CARFAX PUBLISHING. RANKINE RD, BASINGSTOKE RG24 8PR, HANTS, ENGLAND. ISSN: 0954-0105. Pub. country: AUSTRALIA; INDIA. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB A method for immunoassay analysis of the organochlorine insecticide, hexachlorocyclohexane (HCH) has been developed, based upon alkaline conversion in standards and samples to trichlorobenzenes. The trichlorobenzenes were detected through antisera developed to haptens containing either a trichlorobenzene or trichloropyridine moiety, developed using the herbicides, 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and triclopyr, respectively. An enzyme conjugate based on 2,4,5-trichlorophenol provided most sensitive and specific detection. Although the assays cross-reacted with the herbicides, they did not suffer from the major disadvantage of extremely strong cross-reaction with cyclodiene organochlorines reported for a commercial HCH assay. The most sensitive assay had a lower detection limit of 20 mg l<sup>-1</sup> in drinking water and was applied to water and soil matrices.

L16 ANSWER 4 OF 5 MEDLINE DUPLICATE 1  
84136829 Document Number: 84136829. PubMed ID: 6199401. Insecticide fingerprinting technique for detection and location of organochlorine insecticide residues in foods. **Karanth N G**; Srimathi M S; Majumder S K. JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH. PART B: PESTICIDES, FOOD CONTAMINANTS, AND AGRICULTURAL WASTES, (1983 Dec) 18 (6) 745-55. Journal code: 7607167. ISSN: 0360-1234. Pub. country: United States. Language: English.

AB Insecticide fingerprinting technique enables the detection and location of **DDT** and HCH residues in vegetables through the development of green and prussian blue colors respectively. Cut vegetables are pressed against o-tolidine impregnated paper and exposed to sunlight where colored spots appear instantly. The studies on 18 vegetable varieties revealed the pesticide residues and their distribution in different tissues. This direct method is sensitive (0.3/micrograms for HCH & 0.5/micrograms for **DDT**) and has special applications in quality control laboratories and food industry.

L16 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC. DUPLICATE 2  
1983:18521 Document No.: BR24:18521. A CHROMOGENIC PAPER FOR ULTRA RAPID DETECTION OF ORGANO CHLORINE INSECTICIDE RESIDUES IN VEGETABLES. **KARANTH N G K**; SRIMATHI M S; MAJUMDER S K. DISCIPLINE OF INFESTATION CONTROL AND PESTICIDES, CENTRAL FOOD TECHNOLOGICAL RESEARCH INST. MYSORE 570 013, INDIA.. Bull. Environ. Contam. Toxicol., (1982) 28 (2), 221-224. CODEN: BECTA6. ISSN: 0007-4861. Language: English.

=> s113 and IgY

SL13 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s l13 adn IgY

MISSING OPERATOR L13 ADN

The search profile that was entered contains terms or

nested terms that are not separated by a logical operator.

=> d his

(FILE 'HOME' ENTERED AT 12:04:23 ON 22 OCT 2002)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 12:04:42 ON 22 OCT 2002

```
L1      1303 S IGY
L2      0 S L1 AND ORGANOCHLORINE PESTICIDES
L3      0 S L1 AND DDT
L4      0 S L1 AND "DDT"
L5      50127 S DDT
L6      113 S L5 AND CONJUGATE
L7      27 S L6 AND ANTIBODY
L8      18 DUP REMOVE L7 (9 DUPLICATES REMOVED)
L9      220 S "ENDOSULPHAN"
L10     0 S L9 AND ANTIBODY
L11     0 S L9 AND ANTI-ENDOSULPHAN
L12     0 S L9 AND HEXACHLOROHEXANE
L13     786 S (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)
L14     9 S L13 AND DDT
L15     0 S L14 AND ANTIBODY
L16     5 DUP REMOVE L14 (4 DUPLICATES REMOVED)
```

=> s 113 and anti-DDT

```
L17     0 L13 AND ANTI-DDT
```

=> s 113 and organochlorine insecticides

```
L18     1 L13 AND ORGANOCHLORINE INSECTICIDES
```

=> d 118 cbib abs

```
L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
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1982:141288 Document No. 96:141288 A chromogenic paper for ultrarapid detection of organochlorine insecticide residues in vegetables.

**Karant, N. G. K.**; Srimathi, M. S.; Majumder, S. K. (Cent. Food Technol. Res. Inst., Mysore, 570 013, India). Bull. Environ. Contam. Toxicol., 28(2), 221-4 (English) 1982. CODEN: BECTA6. ISSN: 0007-4861.

AB A 1% soln. of o-tolidine [119-93-7] in acetone was prepd. and sprayed uniformly over Whatman No. 1 filter paper disks (18.5 cm) which were then dried at room temp. and stored in the dark. Different **organochlorine insecticides** gave different colored spots following application to the chromogenic paper and exposure to sunlight for 1 min. HCH [58-89-9] And DDT [50-29-3] were detected at concns. of 0.3 and 0.5 .mu.g, resp. Several batches of market samples of vegetables comprising 7 botanical species were analyzed with the chromogenic paper and results compared well with those obtained by TLC.

=> s 1, 1(2,2,2-trichloroethylene) bis (4-chlorobenzene)

MISSING OPERATOR '1, 1(2,2,2-TRIC'

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s hexachlorohexane

```
L19     145 HEXACHLOROHEXANE
```

=> s 119 and antibod?

```
L20     0 L19 AND ANTIBOD?
```

=> s 120 and conjugate

```
L21     0 L20 AND CONJUGATE
```

=> s endosulphan

```
L22     220 ENDOSULPHAN
```

=> s 1220 and IgY  
L220 NOT FOUND  
The L-number entered could not be found. To see the definition  
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 122 and IgY  
L23 0 L22 AND IGY

=> s 122 and antibod?  
L24 0 L22 AND ANTIBOD?

=> d his

(FILE 'HOME' ENTERED AT 12:04:23 ON 22 OCT 2002)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 12:04:42 ON  
22 OCT 2002

L1 1303 S IGY  
L2 0 S L1 AND ORGANOCHLORINE PESTICIDES  
L3 0 S L1 AND DDT  
L4 0 S L1 AND "DDT"  
L5 50127 S DDT  
L6 113 S L5 AND CONJUGATE  
L7 27 S L6 AND ANTIBODY  
L8 18 DUP REMOVE L7 (9 DUPLICATES REMOVED)  
L9 220 S "ENDOSULPHAN"  
L10 0 S L9 AND ANTIBODY  
L11 0 S L9 AND ANTI-ENDOSULPHAN  
L12 0 S L9 AND HEXACHLOROHEXANE  
L13 786 S (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR GOWDA P?/AU)  
L14 9 S L13 AND DDT  
L15 0 S L14 AND ANTIBODY  
L16 5 DUP REMOVE L14 (4 DUPLICATES REMOVED)  
L17 0 S L13 AND ANTI-DDT  
L18 1 S L13 AND ORGANOCHLORINE INSECTICIDES  
L19 145 S HEXACHLOROHEXANE  
L20 0 S L19 AND ANTIBOD?  
L21 0 S L20 AND CONJUGATE  
L22 220 S ENDOSULPHAN  
L23 0 S L22 AND IGY  
L24 0 S L22 AND ANTIBOD?

=> dup remove l13  
PROCESSING COMPLETED FOR L13  
L25 342 DUP REMOVE L13 (444 DUPLICATES REMOVED)

=> s l25 and antibody  
L26 7 L25 AND ANTIBODY

=> s l26 and IgY  
L27 0 L26 AND IGY

=> d l26 1-7 cbib abs

L26 ANSWER 1 OF 7 MEDLINE  
2002062078 Document Number: 21641296. PubMed ID: 11787493. Reverse  
micellar extraction for downstream processing of proteins/enzymes. Krishna  
S Hari; Srinivas N D; Raghavarao K S M S; **Karant N G**.  
(Department of Fermentation Technology & Bioengineering, Central Food  
Technological Research Institute, Mysore, India.. ferm@cscftri.res.nic.in)  
. ADVANCES IN BIOCHEMICAL ENGINEERING/BIOTECHNOLOGY, (2002) 75 119-83.  
Ref: 351. Journal code: 8307733. ISSN: 0724-6145. Pub. country: Germany:  
Germany, Federal Republic of. Language: English.

AB New developments in the area of downstream processing are, hopefully, to fulfill the promises of modern biotechnology. The traditional separation processes such as chromatography or electrophoresis can become prohibitively expensive unless the product is of high value. Hence, there is a need to develop efficient and cost-effective downstream processing methods. Reverse micellar extraction is one such potential and a promising liquid-liquid extraction technique, which has received immense attention for isolation and purification of proteins/enzymes in the recent times. This technique is easy to scale-up and offers continuous operation. This review, besides briefly considering important physico-chemical and biological aspects, highlights the engineering aspects including mass transfer, mathematical modeling, and technology development. It also discusses recent developments in reverse micellar extraction such as affinity based separations, enzymatic reactions in reverse micelles coupled with membrane processes, reverse micellar extraction in hollow fibers, etc. Special emphasis has been given to some recent applications of this technique.

L26 ANSWER 2 OF 7 MEDLINE

2000231723 Document Number: 20231723. PubMed ID: 10767433. Evidence that the glucoamylases and alpha-amylase secreted by *Aspergillus niger* are proteolytically processed products of a precursor enzyme. Dubey A K; Suresh C; Kavitha R; **Karanth N G**; Umesh-Kumar S. (Department of Food Microbiology, Central Food Technological Research Institute, Mysore, India.. akdubey@cscftri.res.nic.in) . FEBS LETTERS, (2000 Apr 14) 471 (2-3) 251-5. Journal code: 0155157. ISSN: 0014-5793. Pub. country: Netherlands. Language: English.

AB A 125-kDa starch hydrolysing enzyme of *Aspergillus niger* characterised by its ability to dextrinise and saccharify starch [Suresh et al. (1999) Appl. Microbiol. Biotechnol. 51, 673-675] was also found to possess activity towards raw starch. Segregation of these activities in the 71-kDa glucoamylase and a 53-kDa alpha-amylase-like enzyme supported by **antibody** cross-reactivity studies and the isolation of mutants based on assay screens for the secretion of particular enzyme forms revealed the 125-kDa starch hydrolysing enzyme as their precursor. N-terminal sequence analysis further revealed that the 71-kDa glucoamylase was the N-terminal product of the precursor enzyme. Immunological cross reactivity of the 53-kDa amylase with **antibodies** raised against the precursor enzyme but not with the 71- and 61-kDa glucoamylase **antibodies** suggested that this enzyme activity is represented by the C-terminal fragment of the precursor. The N-terminal sequence of the 53-kDa protein showed similarity to the reported Taka amylase of *Aspergillus oryzae*. **Antibody** cross-reactivity to a 10-kDa non-enzymic peptide and a 61-kDa glucoamylase described these proteins as products of the 71-kDa glucoamylase. Identification of only the precursor starch hydrolysing enzyme in the protein extracts of fungal protoplasts suggested proteolytic processing in the cellular periplasmic space as the cause for the secretion of multiple forms of amylases by *A. niger*.

L26 ANSWER 3 OF 7 MEDLINE

1999181768 Document Number: 99181768. PubMed ID: 10084277. The effect of latanoprost and brimonidine on rabbit subconjunctival fibroblasts. Lark K K; **Pasha A S**; Yan X; Edward D P. (Department of Ophthalmology, University of Illinois at Chicago College of Medicine, USA. ) JOURNAL OF GLAUCOMA, (1999 Feb) 8 (1) 72-6. Journal code: 9300903. ISSN: 1057-0829. Pub. country: United States. Language: English.

AB PURPOSE: Subconjunctival fibroblasts play a critical role in scarring and treatment failure in fistulizing surgery for glaucoma. The proliferation of subconjunctival fibroblasts appears to be modulated by topical glaucoma medications. This study was conducted to evaluate the effects of latanoprost and brimonidine on subconjunctival fibroblast proliferation in rabbit eyes. METHODS: Twelve pigmented Dutch-belted rabbits were divided into treatment groups of four: latanoprost 0.005%, brimonidine 0.2%, or

balanced saline solution (BSS) each were administered to one treatment group, both eyes of each rabbit, twice a day, 6 days a week for 10 weeks. The eyes were then enucleated along with the conjunctiva, fixed, processed, and evaluated by light microscopy and immunohistochemistry using anti-proliferating cell nuclear antigen (PCNA) and anti-muscle-specific actin **antibody** (HHF-35). Fibroblast cell counts were performed at magnification x40. RESULTS: In all groups, few inflammatory cells were seen in the subconjunctival space under light microscopy. PCNA staining revealed a statistically significant increase in the mean number of labeled fibroblasts in the group receiving brimonidine compared with the control (BSS) group. The group receiving latanoprost also had a significantly higher mean number of labeled fibroblasts than the groups receiving brimonidine or BSS. Only a few fibroblasts stained positively with the anti HHF **antibody**. Eyes treated with latanoprost, however, had significantly higher numbers of positively labeled cells than eyes treated with brimonidine or BSS. CONCLUSION: When applied to rabbit eyes, latanoprost and brimonidine appear to increase the number of positively labeled proliferating subconjunctival fibroblasts.

L26 ANSWER 4 OF 7 MEDLINE

1999019022 Document Number: 99019022. PubMed ID: 9802214. An enzyme-linked immunosorbent assay for the estimation of fungal biomass during solid-state fermentation. Dubey A K; Suresh C; Kumar S U; **Karanth N G**. (Department of Food Microbiology, Central Food Technological Research Institute, Mysore, India.) APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (1998 Sep) 50 (3) 299-302. Journal code: 8406612. ISSN: 0175-7598. Pub. country: GERMANY: Germany, Federal Republic of. Language: English.

AB An enzyme-linked immunosorbent assay for sensitive, specific and quantitative estimation of fungal biomass during solid-state fermentation is described. Using this method, differential growth rates and colonization of the substrate can be studied. The assay has potential application for the efficient monitoring of solid-state fermentation involving specific fungus, for which available methods are not adequate.

L26 ANSWER 5 OF 7 MEDLINE

95099762 Document Number: 95099762. PubMed ID: 7801530. Relationship between active protection in vaccinated buffaloes against haemorrhagic septicaemia and passive mouse protection test or serum **antibody** titres. Chandrasekaran S; Kennett L; Yeap P C; Muniandy N; **Rani B**; Mukkur T K. (Veterinary Research Institute, Perak, Malaysia.) VETERINARY MICROBIOLOGY, (1994 Aug 15) 41 (4) 303-9. Journal code: 7705469. ISSN: 0378-1135. Pub. country: Netherlands. Language: English.

AB The relationship between the standard passive mouse protection test or serum **antibody** titres measured by indirect haemagglutination or enzyme-linked immunosorbent assays and active protection in buffaloes immunized with different types of haemorrhagic septicaemia bacterins was investigated. Groups of 2-3 buffaloes were immunized with the bacterins currently in use in Asia, viz., broth bacterin (BB), alum precipitated vaccine (APV) and oil adjuvant vaccine (OAV) either subcutaneously (BB, APV) or intramuscularly (OAV) and challenged subcutaneously with virulent organisms at different periods post-immunization. Although the passive mouse protection and indirect haemagglutination tests carried out with the pre-challenge sera from vaccinated buffaloes revealed no relationship with active protection in buffaloes, a relationship was observed between the ELISA **antibody** titres and protection. In contrast, a dose-response relationship was observed between the homologous active and passive mouse protection test.

L26 ANSWER 6 OF 7 MEDLINE

95065543 Document Number: 95065543. PubMed ID: 7975147. Characterization of immune response and duration of protection in buffaloes immunized with haemorrhagic septicaemia vaccines. Chandrasekaran S; Kennett L; Yeap P C;

Muniandy N; **Rani B**; Mukkur T K. (Veterinary Institute, Ipoh, Perak, Malaysia. ) VETERINARY MICROBIOLOGY, (1994 Aug 1) 41 (3) 213-9. Journal code: 7705469. ISSN: 0378-1135. Pub. country: Netherlands. Language: English.

AB Two of the three buffaloes immunized with a non-adjuvanted broth bacterin were found to be protected against experimental challenge at 6 weeks but not at 3 months post-challenge. Similarly all buffaloes (4/4) immunized with alum-precipitated vaccine were protected at 6 months but only 1 of the 2 vaccinated animals were protected at 12 months post-immunization. On the other hand, buffaloes immunized with an oil adjuvant and a double emulsion vaccine were completely protected at 12 months post-immunization. Statistically significant differences between immunized versus non-immune animals became evident at 3 months post-immunization, although analysis of cumulative **antibody** titres of pre-challenge sera of vaccinated buffaloes surviving versus those succumbing to experimental challenge revealed significant by higher **antibody** titres in the former as compared to the latter group. These results suggested that there was a relationship between ELISA **antibody** titres and active protection in buffaloes. There also appeared to be a relationship between cutaneous delayed-type hypersensitivity and active protection in buffaloes. Preliminary analysis of the **antibody** isotype distribution in the pre-challenge sera of 2 buffaloes vaccinated with the oil adjuvant vaccine revealed predominance of IgG1 and IgG2 subclasses whose role in protection against haemorrhagic septicaemia was not elucidated.

L26 ANSWER 7 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)  
96:330743 The Genuine Article (R) Number: BF24E. DETECTION AND REMOVAL OF SAMPLE MATRIX EFFECTS IN AGROCHEMICAL IMMUNOASSAYS. SKERRITT J H (Reprint); **RANI B E A**. CSIRO, DIV PLANT IND, CANBERRA, ACT 2601, AUSTRALIA (Reprint); CENT FOOD TECHNOL RES INST, MYSORE 570013, KARNATAKA, INDIA. ACS SYMPOSIUM SERIES (1996) Vol. 621, pp. 29-43. ISSN: 0097-6156. Pub. country: AUSTRALIA; INDIA. Language: ENGLISH.  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB With the completion of the initial development of assays for many of the most important agrochemicals, there has been an increased focus on actual applications of agrochemical immunoassays to food and environmental matrices. A major prerequisite to assay utilization has been the need to identify and remove matrix interferences, which may result in: 1. residue-free samples appearing positive, or else samples containing residues appearing negative; or 2. changes in the sensitivity of residue detection, from either or both shifts in the assay absorbance values in the absence of pesticide or in the standard curve. Matrix effects are best detected by analysis of spikes of pesticide standards into a solvent extract of pesticide-free matrix and comparison of this concentration-response curve with that obtained using standards prepared in solvent alone. A number of approaches to the removal of matrix interference is reviewed, with particular reference to examples from the analyses of insecticide residues in plant-derived foods, including grain and fruit products.

=>

=>

Executing the logoff script...

=> LOG H

Connecting via Winsock to STN



Welcome to STN International! Enter x:x

LOGINID:SSSPTA1644PNH

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985  
NEWS 28 Oct 21 EVENTLINE has been reloaded  
  
NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002  
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FILE 'HOME' ENTERED AT 14:55:43 ON 22 OCT 2002

=> file medline embase biosis scisearch caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 14:55:54 ON 22 OCT 2002

FILE 'EMBASE' ENTERED AT 14:55:54 ON 22 OCT 2002  
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=> s hexachlorohexane  
L1 145 HEXACHLOROHEXANE

=> s l1 and antibody  
L2 0 L1 AND ANTIBODY

=> s l1 and IgY  
L3 0 L1 AND IGY

=> dup remove l1  
PROCESSING COMPLETED FOR L1  
L4 127 DUP REMOVE L1 (18 DUPLICATES REMOVED)

=> s anti-hexachlorohexane  
L5 0 ANTI-HEXACHLOROHEXANE

=>

---Logging off of STN---

=>  
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	12.52	12.73

STN INTERNATIONAL LOGOFF AT 14:57:00 ON 22 OCT 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1644PNH

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN
NEWS	36	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	37	Dec 17	TOXCENTER enhanced with additional content
NEWS	38	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	39	Dec 30	ISMEC no longer available

NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a,  
CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

NEWS	HOURS	STN Operating Hours Plus Help Desk Availability
NEWS	INTER	General Internet Information
NEWS	LOGIN	Welcome Banner and News Items
NEWS	PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS	WWW	CAS World Wide Web Site (general information)

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 16:08:41 ON 12 JAN 2003

=> file medline embase biosis scisearch caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 16:08:52 ON 12 JAN 2003

FILE 'EMBASE' ENTERED AT 16:08:52 ON 12 JAN 2003  
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=> s IgY  
L1 1337 IGY

=> s l1 and magnesium chloride  
L2 4 L1 AND MAGNESIUM CHLORIDE

=> dup remove l2  
PROCESSING COMPLETED FOR L2  
L3 2 DUP REMOVE L2 (2 DUPLICATES REMOVED)

=> d l3 1-2 cbib abs

L3 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1  
2000:184734 Document No.: PREV200000184734. Comparative analysis of methods of  
purification of egg yolk immunoglobulin. Deignan, Tina; Kelly, Jacinta;  
Alwan, Adel; O'Farrelly, Cliona (1). (1) Education and Research Centre,  
St. Vincent's Hospital, Dublin Ireland. Food and Agricultural Immunology,  
(March, 2000) Vol. 12, No. 1, pp. 77-85. ISSN: 0954-0105. Language:  
English. Summary Language: English.

AB This study is a critical comparison of reported methods of purification of  
**IgY** from hen egg yolk. Five methods of lipid removal were  
compared, followed by a comparison of three methods of immunoglobulin  
precipitation. Each of these methods was tested three times. Lowry assays  
were used to measure the protein content of the various purified  
fractions, and densitometric analysis of SDS-polyacrylamide gels was used  
to quantify the proportion of **IgY**. Peak **IgY** yields of  
15.6 and 15.1 mg of **IgY** per ml of egg yolk, with greater than  
60% purity, were obtained after lipid removal using dextran sulphate and  
calcium chloride or phosphotungstic acid and **magnesium**

**chloride**, respectively. Further precipitation of **IgY** from these fractions using 12% PEG, the most effective method of immunoglobulin precipitation, recovered pure **IgY** preparations, with mean yields of 8.80 and 8.62 mg per ml of egg yolk. Alternatively, a simpler and more cost effective method of lipid removal by freezing and thawing of egg yolk at neutral pH recovered 13.1 mg of **IgY** per ml of egg yolk at a purity of 71.1%. Subsequent Ig precipitation also recovered a pure **IgY** preparation with a mean yield of 7.49 mg per ml of egg yolk.

L3 ANSWER 2 OF 2 MEDLINE DUPLICATE 2  
 1998278399 Document Number: 98278399. PubMed ID: 9617837. Application of an ELISA-elution assay as a screening tool for dissociation of yolk antibody-antigen complexes. Kummer A; Li-Chan E C. (University of British Columbia, Department of Food Science, Vancouver, Canada. ) JOURNAL OF IMMUNOLOGICAL METHODS, (1998 Feb 1) 211 (1-2) 125-37. Journal code: 1305440. ISSN: 0022-1759. Pub. country: Netherlands. Language: English.  
 AB A modified enzyme-linked immunosorbent assay termed ELISA-elution assay was used as a screening tool to compare the efficiency of eluents for the dissociation of hen yolk immunoglobulin **IgY** bovine IgG complexes. The potential denaturing effects of the eluents were also monitored. Different buffers (pH 2.3-7.5), containing various types and concentrations of salts (NaCl, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> and MgCl<sub>2</sub>) as well as polyols (ethylene glycol (EG) and glycerol) were compared to the commonly reported glycine x HCl (pH 2.8) buffer and to a commercially available eluent, Actisep. Acidic pH buffers, Actisep and MgCl<sub>2</sub> (3.5 M with EG or 4 M without EG) all successfully dissociated **IgY** from immobilized IgG. However, some denaturation was apparent using MgCl, and, to a lesser extent, Actisep. Furthermore, these same eluents demonstrated a diminished ability for liberating IgG from immobilized **IgY**(IgG). Information on eluent efficacy obtained by the ELISA-elution assays was applied to selectively isolate lower affinity antibodies for immunoaffinity column chromatography.

=> s l1 and phsophotungstic acid  
 L4 0 L1 AND PHSOPHOTUNGSTIC ACID

=> s l1 and phosphotungstic acid  
 L5 3 L1 AND PHOSPHOTUNGSTIC ACID

=> dup remove l5  
 PROCESSING COMPLETED FOR L5  
 L6 1 DUP REMOVE L5 (2 DUPLICATES REMOVED)

=> d l6 cbib abs

L6 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1  
 2000:184734 Document No.: PREV200000184734. Comparative analysis of methods of purification of egg yolk immunoglobulin. Deignan, Tina; Kelly, Jacinta; Alwan, Adel; O'Farrelly, Cliona (1). (1) Education and Research Centre, St. Vincent's Hospital, Dublin Ireland. Food and Agricultural Immunology, (March, 2000) Vol. 12, No. 1, pp. 77-85. ISSN: 0954-0105. Language: English. Summary Language: English.  
 AB This study is a critical comparison of reported methods of purification of **IgY** from hen egg yolk. Five methods of lipid removal were compared, followed by a comparison of three methods of immunoglobulin precipitation. Each of these methods was tested three times. Lowry assays were used to measure the protein content of the various purified fractions, and densitometric analysis of SDS-polyacrylamide gels was used to quantify the proportion of **IgY**. Peak **IgY** yields of 15.6 and 15.1 mg of **IgY** per ml of egg yolk, with greater than 60% purity, were obtained after lipid removal using dextran sulphate and

calcium chloride or **phosphotungstic acid** and magnesium chloride, respectively. Further precipitation of **IgY** from these fractions using 12% PEG, the most effective method of immunoglobulin precipitation, recovered pure **IgY** preparations, with mean yields of 8.80 and 8.62 mg per ml of egg yolk. Alternatively, a simpler and more cost effective method of lipid removal by freezing and thawing of egg yolk at neutral pH recovered 13.1 mg of **IgY** per ml of egg yolk at a purity of 71.1%. Subsequent Ig precipitation also recovered a pure **IgY** preparation with a mean yield of 7.49 mg per ml of egg yolk.

=> s l1 and polyethylene glycol  
L7 64 L1 AND POLYETHYLENE GLYCOL

=> dup remove l7  
PROCESSING COMPLETED FOR L7  
L8 34 DUP REMOVE L7 (30 DUPLICATES REMOVED)

=> s l8 and phosphate buffer  
L9 2 L8 AND PHOSPHATE BUFFER

=> dup remove l9  
PROCESSING COMPLETED FOR L9  
L10 2 DUP REMOVE L9 (0 DUPLICATES REMOVED)

=> d l10 1-2 cbib abs

L10 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
2002:385748 Document No.: PREV200200385748. Isolation of **IgY** from yolk. Staak, Christian (1); Schwarzkopf, Christine; Behn, Ingrid; Hommel, Undine; Hlinak, Andreas; Schade, Ruediger; Erhard, Michael. (1) Bundesinstitut fuer gesundheitlichen Verbraucherschutz und Veterinaermedizin, Diederdsdorfer Weg 1, Berlin, 12277: christian.staak@bgvv.de Germany. Schade, Ruediger [Editor]; Behn, Irene [Editor]; Erhard, Michael [Editor]; Hlinak, Andreas [Editor]; Staak, Christian [Editor]. (2001) pp. 65-107. Springer Lab Manuals. Chicken egg yolk antibodies, production and application: IgY-technology. print. Publisher: Springer-Verlag GmbH & Co. KG Heidelberger Platz 3, D-14197, Berlin, Germany. ISBN: 3-540-66679-6 (paper). Language: English.

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS  
1981:556565 Document No. 95:156565 Immunologically reactive preparations. Polson, Alfred (South African Inventions Development Corp., S. Afr.). Ger. Offen. DE 2951412 19810716, 47 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1979-2951412 19791220.

AB Hens are immunized and eggs laid by the hens are collected, fats are removed from the yolks, and antibodies, esp. .gamma.-globulins, in the yolk are pptd. with linear, H2O-sol. nonionic polymers, such as polyalkylene glycols or dextran [9004-54-0]. Hens, 20-wk-old, were hyperimmunized and eggs were collected and stored at 4.degree.. The eggs were broken, yolks were washed free of white with H2O, mixed with 2 vols. pH 7.5 0.01M **phosphate buffer** contg. 0.1M NaCl, and then with **polyethylene glycol** [25322-68-3], 3.5 g/100 mL, and centrifuged for 10 min at 12,000 g. The top (fat) layer and the clear medium layer were decanted into a funnel contg. cotton to retain the fatty layer. The clear filtrate was mixed with addnl. **polyethylene glycol** to a final concn. of 12 g/100 mL to ppt. **IgY** and certain proteins, including .alpha.- and .beta.-livetins, centrifuged at 10,000 rpm. The ppt. was dissolved in **phosphate buffer** and repptd. with 12% **polyethylene glycol**, with centrifugation to compact the ppt. and remove the polymer. The pellet was dissolved in buffer to give a protein concn. of 6 mg/mL, mixed with 0.01% NaN3 preservative. The

**IgY** was purified by pptn. with 50% satd. (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>. With hyperimmunization of hens with tetanus toxin, eggs contg. antitetanus **IgY** were produced for 4 mo, and the **IgY** in the yolk was found at a higher level than in blood serum.

=> s 11 and DDT

L11 0 L1 AND DDT

=> s 11 and pesticides

L12 0 L1 AND PESTICIDES

=> s 11 and chlorine

L13 1 L1 AND CHLORINE

=> d 113 cbib abs

L13 ANSWER 1 OF 1 SCISEARCH COPYRIGHT 2003 ISI (R)

92:97371 The Genuine Article (R) Number: HC563. SPRING POLAR OZONE BEHAVIOR. AIKIN A C (Reprint). NASA, GODDARD SPACE FLIGHT CTR, ATMOSPHERES LAB, CODE 916, GREENBELT, MD, 20771 (Reprint). PLANETARY AND SPACE SCIENCE (JAN 1992 ) Vol. 40, No. 1, pp. 7-26. ISSN: 0032-0633. Pub. country: USA. Language: ENGLISH.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB It has been recognized since the commencement of Antarctic ozone measurements during the **IGY** that spring southern polar total ozone amount is less than spring northern polar total ozone amount. More importantly, since 1980 there has been a decline in the minimum spring total ozone value. from 250 DU in 1980 to 125 DU in 1987 and below 120 in 1991. This decline occurs within the winter polar vortex, which acts as a containment vessel preventing polar ozone from escaping to lower latitudes and excluding ozone-rich air from the polar region. Ozone decrease can be explained in terms of heterogeneous reactions of **chlorine** and nitrogen reservoir molecules on polar stratospheric clouds. These clouds form in the lower polar stratosphere during winter when temperatures in the Antarctic are sufficiently low to create water ice clouds. Clouds involving nitric acid form at higher temperatures. **Chlorine** reservoirs such as HCl are converted to Cl<sub>2</sub>, which is photodissociated in the presence of sunlight. The resulting Cl reacts with O<sub>3</sub> to form ClO. Measurements of ClO and other species give agreement of theory and experiment within the uncertainties of the measurement. Heterogeneous chemistry accounts for most of the ozone hole. A small amount of ozone loss is also observed above the polar stratospheric cloud level, implying another mechanism, either chemical or dynamical. Above 25 km, formation of ozone-destroying odd nitrogen in the upper stratosphere by energetic electrons and the existence of any trend is still an open question. There is much less ozone depletion in the Arctic. This is the result of a less stable polar vortex and warmer temperatures, which reduce polar stratospheric cloud formation. There is strong evidence that tropospheric forcing within or just outside the vortex leads to adiabatic cooling with resulting cloud formation. During such events ozone-poor tropospheric air is transported into the stratosphere. In the Arctic this can result in the transport of long-lived hydrocarbons. Subsequent reactions lead to the formation of HCl, reducing the effect of Cl. There is also production of HO<sub>2</sub>, which accelerates ozone loss due to **chlorine**. There are also small areas of large and rapid ozone depletion termed miniholes. Ozone-poor air from these regions can propagate to lower latitudes. as can the air from within the vortex. when it disintegrates in late spring. Data from the BUUV ozone-measuring instrument on the Nimbus 4 satellite indicate the existence of October 1970 Antarctic ozone of only 250 DU. This is evidence of the existence of ozone loss with only CH<sub>3</sub>Cl and low concentrations of CFCs as **chlorine** sources.

=> s l1 and organochlorine  
L14 0 L1 AND ORGANOCHLORINE

=> s "DDT"  
L15 50341 "DDT"

=> s l15 and "DDT-OH"  
L16 8 L15 AND "DDT-OH"

=> dup remove l16  
PROCESSING COMPLETED FOR L16  
L17 5 DUP REMOVE L16 (3 DUPLICATES REMOVED)

=> d ;17 1-5 cbib abs

L17 ANSWER 1 OF 5 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 1  
AN 2001:267942 SCISEARCH  
GA The Genuine Article (R) Number: 412JX  
TI Influence of the nature of the cation on the reaction **DDT+**  
**OH-** in sulfobetaine micellar solutions in the presence of added  
salts  
AU Rodriguez A; Graciani M D; Munoz M; Moya M L (Reprint)  
CS Univ Sevilla, Dept Quim Fis, C Prof Garcia Gonzalez S-N, E-41012 Seville,  
Spain (Reprint); Univ Sevilla, Dept Quim Fis, E-41012 Seville, Spain  
CYA Spain  
SO LANGMUIR, (20 MAR 2001) Vol. 17, No. 6, pp. 1860-1863.  
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA.  
ISSN: 0743-7463.  
DT Article; Journal  
LA English  
REC Reference Count: 25  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

17 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> d his

(FILE 'HOME' ENTERED AT 16:08:41 ON 12 JAN 2003)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 16:08:52 ON  
12 JAN 2003

L1 1337 S IGY  
L2 4 S L1 AND MAGNESIUM CHLORIDE  
L3 2 DUP REMOVE L2 (2 DUPLICATES REMOVED)  
L4 0 S L1 AND PHOSPHOTUNGSTIC ACID  
L5 3 S L1 AND PHOSPHOTUNGSTIC ACID  
L6 1 DUP REMOVE L5 (2 DUPLICATES REMOVED)  
L7 64 S L1 AND POLYETHYLENE GLYCOL  
L8 34 DUP REMOVE L7 (30 DUPLICATES REMOVED)  
L9 2 S L8 AND PHOSPHATE BUFFER  
L10 2 DUP REMOVE L9 (0 DUPLICATES REMOVED)  
L11 0 S L1 AND DDT  
L12 0 S L1 AND PESTICIDES  
L13 1 S L1 AND CHLORINE  
L14 0 S L1 AND ORGANOCHLORINE  
L15 50341 S "DDT"  
L16 8 S L15 AND "DDT-OH"



=> d 117 1-5 cbib abs

L17 ANSWER 1 OF 5 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 1  
2001:267942 The Genuine Article (R) Number: 412JX. Influence of the nature of the cation on the reaction **DDT+OH<sup>-</sup>** in sulfobetaine micellar solutions in the presence of added salts. Rodriguez A; Graciani M D; Munoz M; Moya M L (Reprint). Univ Sevilla, Dept Quim Fis, C Prof Garcia Gonzalez S-N, E-41012 Seville, Spain (Reprint); Univ Sevilla, Dept Quim Fis, E-41012 Seville, Spain. LANGMUIR (20 MAR 2001) Vol. 17, No. 6, pp. 1860-1863. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036 USA. ISSN: 0743-7463. Pub. country: Spain. Language: English.  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The reaction of dehydrochlorination of 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane **DDT**, with hydroxide ions has been studied in aqueous micellar solutions of N-hexadecyl-N,N-dimethyl-3-ammonio-1-propane-sulfonate, SB3-16, in the presence of high and moderately high concentrations of various background electrolytes. The results show that at these concentrations the nature of the anion which comes from the salt is not the only factor influencing reactivity, but the nature of the cation also affects the  $k(\text{obs})$  value. This was explained by considering that both the anion and the cation of the added salt bind to the surface of SB3-16 micelles.

L17 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS  
1999:589104 Document No. 131:310372 Study of the Reaction 1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane(**DDT**) + **OH<sup>-</sup>** - in Nonionic Micellar Solutions. Munoz, Maria; Rodriguez, Amalia; Graciani, Maria del Mar; Ortega, Francisco; Vazquez, Maria; Moya, Maria Luisa (Departamento de Quimica Fisica, Universidad de Sevilla, Seville, 41012, Spain). Langmuir, 15(22), 7876-7879 (English) 1999. CODEN: LANGD5. ISSN: 0743-7463. Publisher: American Chemical Society.  
AB Kinetic micellar effects for the title reaction in aq. Brij35 and Triton X-100 nonionic micellar solns. were rationalized by structural studies using surface tension, as well as fluorescence and light scattering measurements.

L17 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS  
1989:149472 Document No. 110:149472 Comparison of the initial metabolic pathway of p,p'-**DDT** in carp and tilapia. Uchida, Naoyuki; Kaneko, Masaharu; Musashi, Tatuya; Tanaka, Kayo; Anzai, Hiroshi; Nishide, Eiichi (Coll. Agric. Vet. Med., Nihon Univ., Tokyo, 154, Japan). Nippon Suisan Gakkaishi, 54(12), 2217-21 (Japanese) 1988. CODEN: NSUGAF. ISSN: 0021-5392.  
AB Carp (Cyprinus carpio) and tilapia (Oreochromis niloticus) injected i.p. with **DDT** were kept in a flow-through aquarium system (FAS) and in a closed aquarium system (CAS). The concns. of **DDT**, DDE, DDD, and p,p'-**DDT-OH** in the whole body and in the CAS were detd. by a combination of silica gel column chromatog. and GLC-ECD to investigate the initial metabolic pathway of **DDT** in both fishes. The **DDT** in both fishes kept in the FAS was rapidly cleared with an exptl. time. A rate const. of the clearance was roughly estd. according to 1st-order reaction at 4.2 .times. 10<sup>-2</sup>/day for the carp and 2.4 .times. 10<sup>-2</sup>/day for the tilapia. The metabolite of **DDT** detected in the carp was only DDE (31% of the original **DDT** on an av. of two fishes, at 7 days after injection and 47% at 35 days, the end of the exptl.). In the tilapia, slight increases of DDE and DDD were obsd. DDE and DDD injected i.p. into tilapia resulted in no change. In the CAS including the fish and rearing water, .apprx.25% of the **DDT** injected was metabolized to DDE and 73% of the original **DDT** remained in the carp. On the other hand, about 1% and 70% of the **DDT** injected was metabolized to DDE and DDD, resp., and 89% of the

DDT remained in the tilapia. Apparently, carp had only one initial metabolic pathway converting DDT to DDE and tilapia had two pathways converting DDT to DDE and DDD.

L17 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2  
1988:358622 Document No.: BA86:54100. UPTAKE AND FATE OF P P' DDT IN  
CARP AND TILAPIA. UCHIDA N; MUSASHI T; KATUURA H; ANZAI H; NISHIDE E. DEP.  
FISHERIES, COLL. AGRIC., VETERINARY MED., NIHON UNIV., SHIMOUMA, SETAGAYA,  
TOKYO 154, JAPAN.. BULL JPN SOC SCI FISH, (1988) 54 (1), 129-133. CODEN:  
NSUGAF. ISSN: 0021-5392. Language: Japanese.

AB Uptake and fate of p,p'-DDT (DDT) in carp *Cyprinus*  
*carpio* and tilapia *Oreochromis niloticus* were investigated by exposure to  
approximately 0.4 ng/ml of DDT solution for 10 weeks in the  
flow-through aquarium and by the determinations of DDT, p,p'-DDD  
(DDD) and p,p'-DDT-OH (DDT-OH) in  
the whole bodies with GC-FID. The concentration of DDT in carp  
gradually increased with the exposure time, while that of DDE rapidly  
increased, but DDD and DDT-OH were not detectable. The  
bioconcentration factor (BCF) of DDT in carp at 10-week  
exposure was about 5,000, on the other hand, that of DDT+DDE was  
about 22,000. In tilapia, DDT concentration rapidly increased  
with exposure time, but no DDT metabolites were detected except  
a very small amount of DDD through the experiment. The BCF of DDT  
in tilapia at 10-week was about 23,000, roughly corresponding to that of  
DDT+DDD in carp. These results suggest that carp and tilapia show  
no difference in the uptake of DDT, but a significant difference  
of fate in their whole bodies.

L17 ANSWER 5 OF 5 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 3  
81071738 EMBASE Document No.: 1981071738. Gas-liquid chromatographic  
demonstration of the specificity of rabbit IgG antibody to the pesticide  
DDT and its metabolites. Furuya K.; Urasawa S.. Dept. Hyg.,  
Sapporo Med. Coll., Sapporo, Japan. Molecular Immunology 18/2 (95-102)  
1981.

CODEN: IMCHAZ. Pub. Country: United Kingdom. Language: English.  
AB The specificity of rabbit IgG antibody to DDT was studied by  
primary binding interactions between the antibody and DDT and  
each of its metabolites (DDD, DDE and DDT-OH) which  
are haptens. The principal association constants of DDT-antibody  
for DDT, DDD, DDE and DDT-OH were computed  
at  $1.06 \times 10^8$  l/mol,  $1.61 \times 10^8$  l/mol,  $1.09 \times 10^7$  l/mol and  $0.75 \times 10^7$  l/mol,  
respectively. To confirm the antibody specificity further, the binding  
interactions between the antibody and DDT were also tested in  
the presence of DDD, DDE, DDT-OH, o,p'-DDT  
and their mixture, respectively. Significant differences in the  
DDT-displacing ability among DDT and its structurally  
related haptens were observed to be related to the van der Waals contours  
and perhaps hydrophobicities of these haptens. The DDT  
-displacing power of each metabolite was dependent on the stronger of the  
two different association constants of the DDT-antibody for the  
haptens. In conclusion, it was demonstrated that rabbit IgG antibody to  
DDT discriminates minor differences in structure among DDT  
and its structurally related haptens with regard to the position of the  
chlorine atom on the diphenyl nuclei, p,p'-and o,p'-; the number of  
chlorine atoms added to 2-carbon, dichloro- and trichloro; and the  
structures ethylene (>C=C<) and ethane (.ident.C-C.ident.); ethanol  
(.ident.C-C.ident.OH) and ethane (.ident.C-C.ident.H). ECD1 gas-liquid  
chromatography was applied successfully to determine the amount of unbound  
free hapten molecules remaining in the supernatant separated by the Farr  
technique after equilibrium was established between antibody and hapten.  
Thus, the gas chromatographic method appears to be useful for the analysis  
of the specificity of hapten-antibody reactions, especially of binding  
reactions between antibody and hydrophobic haptens for which

radioisotope-labeling is difficult.

=> s endosulphan

L18 222 ENDOSULPHAN

=> s l18 and heptachlor

L19 44 L18 AND HEPTACHLOR

=> s l19 and hypochlorite

L20 0 L19 AND HYPOCHLORITE

=> dup remove l19

PROCESSING COMPLETED FOR L19

L21 23 DUP REMOVE L19 (21 DUPLICATES REMOVED)

=> d l21 1-23 cbib abs

L21 ANSWER 1 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 1  
2002455358 EMBASE Methods for selective determination of persistent  
organochlorine pesticide residues in water and sediments by capillary gas  
chromatography and electron-capture detection. Fatoki O.S.; Awofolu R.O..  
O.S. Fatoki, Department of Chemistry, University of Fort Hare, Alice 5700,  
South Africa. ofatoki@ufh.ac.za. Journal of Chromatography A 983/1-2  
(225-236) 3 Jan 2003.

Refs: 63.

ISSN: 0021-9673. CODEN: JCRAEY.

Publisher Ident.: S 0021-9673(02)01730-2. Pub. Country: Netherlands.

Language: English. Summary Language: English.

AB Different extraction methods were evaluated for the determination of  
fifteen organochlorine pesticides (OCPs) in water and sediments.  
Liquid-liquid extraction (LLE) was evaluated for the pesticides analyses  
in water while Soxhlet extraction (SE) and microwave assisted extraction  
(MAE) methods were compared in sediment. Of all the extracting solvents  
used, dichloromethane gave the best results. Percentage recoveries ranged  
from 71.03.+-.8.15 (dieldrin) to 101.25.+-.2.17% [.alpha.-  
benzenehexachloride (.alpha.-BHC)] in water with LLE. In sediments the  
percentage recoveries with Soxhlet extraction method varied between  
88.22.+-.7.85 (endrin) and 109.63.+-.5.10% (.beta.-BHC) and ranged from  
74.11.+-.9.82 (2,4 DDT) to 97.50.+-.4.56% (.alpha.-BHC) with MAE. The  
limits of detection for the OCPs ranged from 5.5 to 20.6 ng/l and between  
0.6 and 2.1 ng/g, respectively. The LLE and the SE methods were applied to  
water and sediments samples, respectively, from marine and freshwater  
sources in the Eastern Cape Province of South Africa that receive runoffs  
from agricultural lands and effluents from industries. The levels of OCPs  
ranged from 5.5 (2,4-DDD) to 450.+-.0.10 ng/l (.beta.-BHC) in water  
samples and from 0.6 (aldrin and 2,4-DDD) to 184.+-.0.12 ng/g (.beta.-BHC)  
in sediments for triplicate analyses. Some endocrine disrupting OCPs such  
as DDT, DDE, **heptachlor**, **endosulphan** and the  
chlordanes were detected. .COPYRGT. 2002 Elsevier Science B.V. All rights  
reserved.

L21 ANSWER 2 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

2002105002 EMBASE Improved analytical procedure for determination of  
chlorinated pesticide residues in human serum using solid phase disc  
extraction (SPDE), single-step clean-up and gas chromatography. Manirakiza  
P.; Covaci A.; Schepens P.. P. Manirakiza, Toxicological Centre,  
University of Antwerp, Universiteitsplein 1, Antwerp 2610, Belgium.  
manirak@uia.ua.ac.be. Chromatographia 55/5-6 (353-359) 2002.

Refs: 17.

ISSN: 0009-5893. CODEN: CHRGB7. Pub. Country: Germany. Language: English.

Summary Language: English.

AB An improved analytical methodology based on solid-phase disc extraction

(SPDE) and a single-step clean-up on Florisil is proposed for a large number of organochlorine pesticide residues in serum. Extraction was performed following denaturation of proteins with formic acid after it was shown that it has no degradation effect on targeted analytes (.alpha., .beta., .gamma.-HCH isomers, HCB, DDT with its 5 analogues, endrin, aldrin, dieldrin, alachlor, **heptachlor**, heptachlorepoxyde, .alpha., .beta.-**endosulphan**, endosulphansulphate, methoxychlor and mirex). Determination and quantification were by GC-ECD and GC-MS on two different, analytical capillary-columns using PCNB (pentachloronitrobenzene) and PCB 190 internal standards. Recoveries and limits of detection determined on pooled serum ranged 54-102% (for medium spiking level) and 10-50 pg mL(-1) serum respectively. Twenty-one individuals serum samples from the University Hospital of Antwerp were analysed and results were related to the ages of the donors. For compounds not detected by GC-MS, eventual coelution with PCBs in GC-ECD analysis was studied.

- L21 ANSWER 3 OF 23 MEDLINE DUPLICATE 2  
 2001497039 Document Number: 21429866. PubMed ID: 11547868. Monitoring of organochlorine and organophosphorus pesticides in the water of the Reconquista River (Buenos Aires, Argentina). Rovedatti M F; Castane P M; Topalian M L; Salibian A. (Department of Basic Sciences, National University of Lujan, Argentina. ) WATER RESEARCH, (2001 Oct) 35 (14) 3457-61. Journal code: 0105072. ISSN: 0043-1354. Pub. country: England; United Kingdom. Language: English.
- AB The Reconquista river is a typical example of the adverse impact of human activity on a watercourse. Approximately 10% of the population of the country is settled on its basin and it receives wastewater discharges from residences and industries. This paper describes the results of the first systematic data for measurement of pesticides in surface water of the river, based on a monthly monitoring program over two-year span. The analyses were performed, in three sampling stations (S1, S2 and S3), along 46 km of its course, following the AOAC methods. Screening included the following pesticides: (a) Organochlorines: alpha, beta and gamma HCH; **heptachlor**, **heptachlor** epoxide; aldrin; endrin; dieldrin; op' and pp' DDT; op' and pp' DDE; alpha and gamma chlordane and **endosulphan** II; (b) Organophosphates: ethyl and methyl parathion; chlorpyrifos and fenitrothion. From the 60 samples analyzed, 35% contained organochlorine pesticides in a concentration higher than the detection limit. Organophosphates were found in no case. Throughout the studied period, DDT and its metabolite DDE were only found in S1 and gamma chlordane in S3; **heptachlor** was present in 50% of the samples of S2 and in 35% of S3, while HCH isomers were detected in 38% of S2 and 45% of S3 samples. Neither temporal nor spatial trends were found. There was not a relationship between the time of samplings and the fumigation season for farming purposes. At all locations, pesticides levels were found to be between 40 and 400 times higher than the legal limits established for protection of aquatic life.

- L21 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2003 ACS  
 2001:80737 Document No. 134:271825 SPME of 52 pesticides and polychlorinated biphenyls: Extraction efficiencies of the SPME coatings poly(dimethylsiloxane), polyacrylate, poly(dimethylsiloxane)-divinylbenzene, Carboxen-poly(dimethylsiloxane), and Carbowax-divinylbenzene. Valor, Ignacio; Perez, Monica; Cortada, Caryl; Apraiz, David; Molto, Juan Carlos; Font, Guillermina (Labagua S.A., Alicante, 03007, Spain). Journal of Separation Science, 24(1), 39-48 (English) 2001. CODEN: JSSCCJ. Publisher: Wiley-VCH Verlag GmbH.
- AB Fiber/water partition coeffs. (Kfw) of pesticides, including triazines, organophosphorus pesticides, organochlorine pesticides, and polychlorinated biphenyls (PCBs) were exptl. calcd. for the five polymeric coatings poly(dimethylsiloxane) (PDMS), polyacrylate (PA), poly(dimethylsiloxane)-divinylbenzene (PDMS-DVB), Carboxen-poly(dimethylsiloxane) (CAR-PDMS), and Carbowax-divinylbenzene (CW-DVB)

com. available for solid-phase microextn. coupled to gas chromatog. The equil.-time profiles for the five coatings were previously studied in order to establish the time needed for equil. To calc. K<sub>fw</sub> the amt. of analyte extd. at equil. was obtained by gas chromatog. anal. of spiked water samples. In the case of mixed coatings in which adsorption processes are involved the term partition coeff. is not strictly correct and partition coeff. apparent is used in these cases. For the triazines, small partition coeffs. were found, showing that PDMS-DVB permits the best extn. for these compds. PA and PDMS-DVB gave the highest mean partition coeffs. for the organophosphorus pesticides. Organochlorine pesticides in general gave high K<sub>fw</sub> with all five coatings, with strong differences depending on the compd. In the case of PCBs a decrease in the partition coeff. with the increase of the no. of chlorines substituted was obsd. The results obtained indicated that the polarity of the fibers is not the main factor affecting the extn. The presence of DVB in the mixed coatings seems to increase the uptake, probably due to adsorption processes instead of absorption. In general the PDMS-DVB coating proved to be a good choice for the anal. of the compds. under study.

L21 ANSWER 5 OF 23 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 3  
 2002:20063 The Genuine Article (R) Number: 504HC. Automated Soxhlet extraction and single step clean-up for the determination of organochlorine pesticides in soil by GC-MS or GC-ECD. Manirakiza P (Reprint); Covaci A; Andries S; Schepens P. Univ Antwerp, Toxicol Ctr, Univ Pl 1, B-2610 Wilrijk, Belgium (Reprint); Univ Antwerp, Toxicol Ctr, B-2610 Wilrijk, Belgium. INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY (DEC 2001) Vol. 81, No. 1, pp. 25-39. Publisher: GORDON BREACH PUBLISHING, TAYLOR & FRANCIS GROUP. 325 CHESTNUT ST, 8TH FL, PHILADELPHIA, PA 19106 USA. ISSN: 0306-7319. Pub. country: Belgium. Language: English. \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Automated Soxhlet extraction has been evaluated for the determination of 21 organochlorine pesticides (DDT analogues, HCH isomers, hexachlorobenzene, aldrin endrin, dieldrin alachlor, **heptachlor**, heptachlorepoxyde, alpha- and beta -**endosulphan** **endosulphan** sulphate, methoxychlor and mirex) from soil. The Soxhlet extraction method was compared with ultrasonic extraction. Recoveries obtained by hot Soxhlet were higher than for ultrasonic extraction and ranged from 70 to 102% for the lowest fortification level (5 ng/g dry soil). A single clean-up step on Florisil and silica was used to remove interfering material. Because of complementary, GC-ECD and GC-MS were used for the analysis. The detection limits were between 0.1 and 0.2 ng/g dry soil for GC-ECD and 0.2 and 0.4 ng/g dry for GC-MS, respectively.

L21 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2003 ACS  
 2001:16230 Document No. 134:75962 Pesticides in sediments from Queensland irrigation channels and drains. Muller, Jochen F.; Duquesne, Sabine; Ng, Jack; Shaw, Glen R.; Krrishnamohan, K.; Manonmanii, K.; Hodge, Mary; Eaglesham, Geoff K. (National Research Center For Environmental Toxicology, University of Queensland, Coopers Plains, 4108, Australia). Marine Pollution Bulletin, 41(7-12), 294-301 (English) 2000. CODEN: MPNBAZ. ISSN: 0025-326X. Publisher: Elsevier Science Ltd..  
 AB Pesticide concn. in sediment from irrigation areas can provide information required to assess exposure and fate of these chems. in freshwater ecosystems and their likely impacts to the marine environment. In this study, 103 sediment samples collected from irrigation channels and drains in 11 agricultural areas of Queensland were analyzed for a series of past and presently used pesticides including various organochlorines, synthetic pyrethroids, benzoyl ureas, triazines, and organophosphates. The most often detected compds. were endosulphanes (.alpha., .beta., and/or **endosulphan** sulfate) which were detectable in 78 of the 103 samples and levels ranged from below the limit of quantification (0.1 ng g<sup>-1</sup> dw) up to 840 ng g<sup>-1</sup> dw. DDT and its metabolites were the second most often detected pesticide investigated (74 of the 103 samples) with concns.

.ltoreq.240 ng g<sup>-1</sup> dw of .SIGMA.DDTs. Mean .SIGMA.endosulphan and .SIGMA.DDT concns. were 1-2 orders of magnitude higher in sediments from the irrigation areas which are dominated by cotton cultivation compared to those which are dominated by sugarcane cultivation. In contrast to these insecticides, the herbicides diuron, atrazine, and ametryne were the compds. which were most often detected in sediments from irrigation drains in sugarcane areas with max. concns. in areas of 120, 70, and 130 ng g<sup>-1</sup> dw, resp. In particular during flood events, when light is limiting, transport of these photosynthesis inhibiting herbicides from the sugarcane cultivation areas to the marine environment may result in addnl. stress of marine plants.

L21 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2003 ACS

2001:78933 Document No. 134:226430 Wash-off of SOC's from organic films on an urban impervious surface. Diamond, M. L.; Gingrich, S. E.; Stern, G. A.; McCarry, B. E. (Department of Geography, University of Toronto, Toronto, ON, M5S 3G3, Can.). Organohalogen Compounds, 45, 272-275 (English) 2000. CODEN: ORCOEP. ISSN: 1026-4892. Publisher: Michael S. Denison.

AB Considerable work has investigated semivolatile org. compd. (SOC) dynamics in naturally occurring media, e.g., air particles, vegetation and soils, however minimal attention has been devoted to the effect of the built environment on SOC dynamics. Films consisting of a complex mixt. of anthropogenic and biogenic compds. derived from atm. deposition have been shown to accumulate on impervious surfaces in the built environment. The film is hypothesized to consist of primary and secondary compds., the latter being polar and lower vapor pressure reaction products of primary emissions, analogous to secondary org. aerosols. N. L. Law and M. L. Diamond have hypothesized that the polar compds. facilitate the removal of nonpolar SOC's from the film by pptn. This paper presents evidence that supports the hypotheses that: (a) pptn. removes film constituents, and (b) the removal is non-selective, i.e., there is little or no relationship between chem. soly. and removal rate.

L21 ANSWER 8 OF 23

MEDLINE

DUPLICATE 4

97400439 Document Number: 97400439. PubMed ID: 9257933. Effects of [3H]-BIDN, a novel bicyclic dinitrile radioligand for GABA-gated chloride channels of insects and vertebrates. Rauh J J; Benner E; Schnee M E; Cordova D; Holyoke C W; Howard M H; Bai D; Buckingham S D; Hutton M L; Hamon A; Roush R T; Sattelle D B. (DuPont Agricultural Products, Stine-Haskell Research Center, Newark, DE 19714, USA. ) BRITISH JOURNAL OF PHARMACOLOGY, (1997 Aug) 121 (7) 1496-505. Journal code: 7502536. ISSN: 0007-1188. Pub. country: ENGLAND: United Kingdom. Language: English.

AB 1. The radiolabelled bicyclic dinitrile, [3H]-3,3-bis-trifluoromethyl-bicyclo[2.2.1]heptane-2,2-dicarbonitrile ([3H]-BIDN), exhibited, specific binding of high affinity to membranes of the southern corn rootworm (*Diabrotica undecimpunctata howardi*) and other insects. A variety of gamma-aminobutyric acid (GABA) receptor convulsants, including the insecticides **heptachlor** (IC<sub>50</sub>, 35 +/- 3 nM) and dieldrin (IC<sub>50</sub>, 93 +/- 7 nM), displaced [3H]-BIDN from rootworm membranes. When tested at 100 microM, 1-(4-ethynylphenyl)-4-n-propyl-2,6,7-trioxabicyclo[2.2.2]octane (EBOB), 4-t-butyl-2,6,7-trioxa-1-phosphabicyclo[2.2.2]octane-1-thione (TBPS), 1-phenyl-4-t-butyl-2,6,7-trioxabicyclo[2.2.2]octane (TBOB) and picrotoxin failed to displace 50% of [3H]-BIDN binding to rootworm membranes indicating that the bicyclic dinitrile radioligand probes a site distinct from those identified by other convulsant radioligands. 2. Dissociation studies showed that dieldrin, ketoendrin, toxaphene, **heptachlor** epoxide and alpha and beta **endosulphan** displace bound [3H]-BIDN from rootworm membranes by a competitive mechanism. 3. Rat brain membranes were also shown to possess a population of saturable, specific [3H]-BIDN binding sites, though of lower affinity than in rootworm and with a different pharmacological profile. Of the insecticidal GABAergic convulsants that displaced [3H]-BIDN from rootworm, cockroach (*Periplaneta americana*) and rat brain membranes, many were more

effective in rootworm. 4. Functional GABA-gated chloride channels of rootworm nervous system and of cockroach nerve and muscle were blocked by BIDN, whereas cockroach neuronal GABA(B) receptors were unaffected. 5. Expression in *Xenopus* oocytes of either rat brain mRNA, or cDNA-derived RNA encoding a GABA receptor subunit (Rdl) that is expressed widely in the nervous system of *Drosophila melanogaster* resulted in functional, homo-oligomeric GABA receptors that were blocked by BIDN. Thus, BIDN probes a novel site on GABA-gated Cl<sup>-</sup> channels to which a number of insecticidally-active molecules bind.

L21 ANSWER 9 OF 23 MEDLINE DUPLICATE 5  
96228592 Document Number: 96228592. PubMed ID: 8647305. Food surveillance in the Basque Country (Spain). II. Estimation of the dietary intake of organochlorine pesticides, heavy metals, arsenic, aflatoxin M1, iron and zinc through the Total Diet Study, 1990/91. Urieta I; Jalon M; Equilero I. (Departamento de Sanidad, Direccion de Salud Publica, Vitoria-Gasteiz, Spain. ) FOOD ADDITIVES AND CONTAMINANTS, (1996 Jan) 13 (1) 29-52. Journal code: 8500474. ISSN: 0265-203X. Pub. country: ENGLAND: United Kingdom. Language: English.

AB Total diet samples purchased at monthly intervals between March 1990 and December 1991 were analysed for different contaminants and nutrients. Each total diet sample included 91 food items which were combined after preparation and/or cooking into 16 groups of similar foods. The 'market basket' was based on a food survey which referred to the adult population (25-60 years) carried out in the Basque Country between 1988 and 1990. The dietary intakes (micrograms/day) of lead (43), cadmium (11), mercury (18), arsenic (291), hexachlorobenzene (HCB) (0.2), alpha-hexachlorocyclohexane (alpha-HCH) (< 0.1), beta-hexachlorocyclohexane (beta-HCH) (0.1), gamma-hexachlorocyclohexane (gamma-HCH) (2.9), dichlorodiphenyltrichloroethane (DDT) (0.3), dichlorodiphenyldichloroethane (DDE) (0.9), dichlorodiphenyldichloroethane (DDD) (0.2), dieldrin (0.5), **heptachlor** epoxide (< 0.1), **alpha-endosulphan** (0.1) and **beta-endosulphan** (0.1) were all well below the respective Acceptable Daily Intakes or Provisional Tolerable Weekly Intakes. However, arsenic intake was much higher than that estimated in other countries and gamma-HCH was detected in anomalously high levels in the bread group. Dietary intakes of delta-hexachlorocyclohexane (delta-HCH), aldrin, endrin, **heptachlor** and methoxychlor were not calculated because no residues were detected in any of the samples. Aflatoxin M1 intake was not estimated owing to the low levels detected. Finally, zinc intakes (11.6 mg/day) were below the recommended dietary allowances for Spain and the same was true for iron (11.3 mg/day), but only for females.

L21 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2003 ACS  
1995:876541 Document No. 123:283902 Studies on flash semimicro method of organochlorine pesticide determination in edible oils and fats by HRGC-ECD/C-O-C. Jaszczynski, J. R.; Grzeskiewicz, S.; Obiedzinski, M. W. (Meat and Fat Research Institute, Warsaw, 02-532, Pol.). Acta Chromatographica, 4, 117-25 (English) 1995. CODEN: ATCREU. ISSN: 1233-2356. Publisher: Silesian University, Institute of Chemistry.

AB Stability of representative organochlorine pesticides in concd. sulfuric acid was examd. aiming at optimization of lipid matrix removal conditions. It was found that kinetic control of side reactions affecting notoriously fragile organochlorine pesticides, particularly aldrin, endrin, dieldrin, **endosulphan**, **heptachlor** epoxide and methoxychlor in concd. sulfuric acid could be effected by modification of the milieu. Slight excess of hydrosulfate anions completely suppressed aldrin, **alpha-endosulphan** and **heptachlor** epoxide losses. Recoveries of all the pesticides studied except dieldrin, endrin and partly methoxychlor improved spectacularly, opening extended possibilities of rapid organochlorine pesticides anal. in a cumbersome lipid matrix.

L21 ANSWER 11 OF 23 SCISEARCH COPYRIGHT 2003 ISI (R)



95:357967 The Genuine Article (R) Number: QY634. CRYSTAL-PLASTIC AND PLASTIC-LIQUID PHASE-TRANSITIONS, AND PURITY DETERMINATION. KSIAZCZAK A (Reprint); NAGATA I. WARSAW UNIV TECHNOL, DEPT CHEM, NOAKOWSKIEGO 3, PL-00664 WARSAW, POLAND (Reprint); KANAZAWA UNIV, DEPT CHEM & CHEM ENGN, DIV PHYS SCI, KANAZAWA, ISHIKAWA 920, JAPAN. THERMOCHIMICA ACTA (15 APR 1995) Vol. 254, pp. 31-39. ISSN: 0040-6031. Pub. country: POLAND; JAPAN. Language: ENGLISH.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Six environmental standards, **Heptachlor**, **Heptachlor** epoxide, beta-**Endosulphan**, Dieldrin, Endrin and Endrin ketone, have been investigated by DSC. The temperature, enthalpy and entropy of the phase transitions were determined. The plastic-liquid and normal crystal-plastic phase equilibria were used for the determination of eutectic purity by the cryometric method. The plastic phase-liquid equilibrium is not useful for the purity determination. The eutectic purity calculated on the basis of the normal crystal-plastic phase transition is consistent with GC and HPLC results.

L21 ANSWER 12 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 6 94083022 EMBASE Document No.: 1994083022. Organochlorine pesticide residues in the sediments of selected river bays in Lake Kariba, Zimbabwe. Zaranyika M.F.; Mambo E.; Makhubalo J.M.. Chemistry Department, University of Zimbabwe, P.O. Box MP 167, Harare, Zimbabwe. Science of the Total Environment 142/3 (221-226) 1994. ISSN: 0048-9697. CODEN: STEVA8. Pub. Country: Netherlands. Language: English. Summary Language: English.

AB Sediment samples from seven of the major river bays on the Zimbabwe side of Lake Kariba were analysed for organochlorine pesticide residues by capillary gas chromatography and electron capture detection. The results obtained confirm contamination of most of the bays by DDT and its metabolites, **endosulphan**, aldrin, dieldrin, endrin and **heptachlor**.

L21 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2003 ACS 1992:65967 Document No. 116:65967 Annual cycle of polychlorinated biphenyls and organohalogen pesticides in air in southern Ontario. 2. Atmospheric transport and sources. Hoff, Raymond M.; Muir, Derek C. G.; Grift, Norbert P. (Cent. Atmos. Res. Exp., Atmos. Environ. Serv., Egbert, ON, L0L 1L0, Can.). Environmental Science and Technology, 26(2), 276-83 (English) 1992. CODEN: ESTHAG. ISSN: 0013-936X.

AB Measurements and data on the annual cycle of air concns. in southern Ontario are described for >30 organohalogen pesticides; instances of seasonally high concns. are analyzed in terms of meteorol. transport. The 7 cases of highest concns. of the pesticide species indicate long-range transport from the south, esp. the southern US and the Caribbean. The data are analyzed in terms of the temp. dependence of the air concn. The PBC concns., which are only weakly dependent on transport paths, are strongly dependent on temp. through the vapor pressure of the compd. A similar effect is seen in general for the organohalogens with a more strongly apparent influence of air transport path. .alpha.-Hexachlorocyclohexane, pentachloroanisole, and **heptachlor** show no temp.-concn. dependence. Model predictions of the concn. of PCBs in air can be made by knowing the slope of the log vapor pressure vs. inverse temp. curve (Antoine equation) as well as expected air concns. of particulate matter. For other organochlorines, esp. those with a more recent or current-use pattern, regional scale and long-range transport from areas with higher concns. can be expected and further work to obtain samples in those areas is needed.

L21 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2003 ACS 1992:45542 Document No. 116:45542 Annual cycle of polychlorinated biphenyls and organohalogen pesticides in air in southern Ontario. 1. Air concentration data. Hoff, R. M.; Muir, D. C. G.; Grift, N. P. (Atmos.



Environ. Serv., Egbert, ON, L0L 1L0, Can.). Environmental Science and Technology, 26(2), 266-75 (English) 1992. CODEN: ESTHAG. ISSN: 0013-936X.

- AB From July 1988 to Sept. 1989, 143 air samples, obtained at Egbert, Ontario were analyzed for vapor-phase polychlorinated biphenyls (PCBs) and organohalogen pesticides. This data set is believed to be the first high temporal resoln. PCB data set obtained over an annual cycle in North America and has obvious use for detg. processes of deposition, transport, and atm. transformation of these important chems. Concns. of the sum of 91 PCB congeners (.sum.PCB) of IUPAC No. 16 or higher ranged from a subpicogram/m3 detection level to >2 ng/m3. Monthly avs. of .sum.PCB were 55-823 pg/m3. Organochlorine pesticide (CHCOR) max. (mean) concns. were for .sum.HCH, 1 ng/m3 (20 pg/m3); for .sum.CHLOR, 430 (81) pg/m3; for polychlorocomplexes 580 (26) pg/m3; for .sum.DDT, 560 (90) pg/m3; for dieldrin, 210 (46) pg/m3. Higher concns. of the locally and regionally used pesticides trifluoralin, 4 ng/m3 (270 pg/m3) and endosulfan, 3.7 ng/m3 (346 pg/m3) were found. Some of these values were actually higher than reported in other studies since the 1970s. The ratio .alpha.-HCH/.gamma.-HCH has a well-defined annual cycle peaking in winter at .apprx.7 and minimizing in summer at .apprx.1. The concns. of these species suggests a Lorentzian form for the annual cycle of these chems. .sum.PCBs have a min. in this function of 55 pg/m3 and a max. amplitude 14 times this min., occurring in late July and with a half-width of 0.67 mo. .sum.DDT has a min. of 11 pg/m3 with an amplitude of 20 times the min. value, again peaking in late July but with a half-width of 1.7 mo. This function is readily programmable into models which make use of the air concn. data to det. deposition (both wet and dry).

L21 ANSWER 15 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 7 92199645 EMBASE Document No.: 1992199645. Baseline levels of selected organochlorine pesticide residues in surface waters in Ibadan (Nigeria) by electron capture on gas chromatography. Nwankwoala A.U.; Osibanjo O.. Department of Chemistry, University of Ibadan, Ibadan, Nigeria. Science of the Total Environment 119/- (179-190) 1992. ISSN: 0048-9697. CODEN: STEVA8. Pub. Country: Netherlands. Language: English. Summary Language: English.

- AB Organochlorine pesticide residues present in surface waters of Ibadan city, Western Nigeria were determined by electron capture gas chromatographic techniques. Some of the organics quantified include .alpha.,.beta.-BHC 0.001-0.3 .mu.g/l, lindane (.gamma.-BHC) 0.007-0.3 .mu.g/l, aldrin ND-0.04 .mu.g/l, dieldrin 0.018-0.657 .mu.g/l, endrin ND-0.019 .mu.g/l, **heptachlor** 0.004-0.202 .mu.g/l, **endosulphan** ND-0.43 .mu.g/l, HCB ND-0.092 .mu.g/l and total DDT ND-1.3 .mu.g/l. These levels indicate relatively higher loads of organic contaminants in these water bodies compared with concentrations elsewhere. The results also establish that organochlorine pesticide residues are widely distributed in these surface waters even at sites quite remote from point sources.

L21 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2003 ACS 1992:619529 Document No. 117:219529 Organochlorine pesticide contamination of rainwater, domestic tap water and well water of Karachi city. Begum, Saeedan; Begum, Zahida; Alam, Mohd Saeed (Dep. Chem., Univ. Karachi, Karachi, 7270, Pak.). Journal of the Chemical Society of Pakistan, 14(1), 8-11 (English) 1992. CODEN: JCSPDF. ISSN: 0253-5106.

- AB The presence of 6 organochlorine pesticides was studied in rainwater, tap water, and groundwater in Karachi, Pakistan. The probable sources of the pesticides in the atm. and water are discussed.

L21 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2003 ACS 1991:565386 Document No. 115:165386 Simultaneous separation and determination of hydrocarbons and organochlorine compounds by using a two-step microcolumn. Rodriguez, O. M.; Desideri, P. G.; Lepri, L.;

Checchini, L. (Dep. Chem., Univ. Costa Rica, San Jose, Costa Rica).  
Journal of Chromatography, 555(1-2), 221-8 (English) 1991. CODEN: JOCRAM.  
ISSN: 0021-9673.

- AB The simultaneous sepn. and detn. of a mixt. of hydrocarbons and organochlorine compds. was successfully carried out by using sorption chromatog. on a 2-step microcolumn of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> for their fractionation, and a dual detector system. In addn. to the sepn. and identification of hydrocarbons and heterocompounds contg. N, O, and S sepn. and identification of chlorinated hydrocarbons (dichlorobenzenes, p-chlorotoluene, hexachlorobutadiene, 1,2,4-trichlorobenzene and 2-chloronaphthalene), pesticides (chlorpicrin, aldrin, lindane, .alpha.-and .beta.-benzene hexachloride (BHC), endrin, dieldrin, endosulfan, methoxychlor) and herbicides (propanil, dichlorbenil, trifluralin, difolatan) were achieved in mixts. contg. polychlorinated biphenyl, strobane, and chlordane.

- L21 ANSWER 18 OF 23 MEDLINE DUPLICATE 8  
91071478 Document Number: 91071478. PubMed ID: 2253807. Organochlorine and organophosphorus residues in the fat of domestic farm animal species, Ontario, Canada 1986-1988. Frank R; Braun H E; Stonefield K I; Rasper J; Luyken H. (Agricultural Laboratory Services, Ontario Ministry of Agriculture and Food, University of Guelph, Canada. ) FOOD ADDITIVES AND CONTAMINANTS, (1990 Sep-Oct) 7 (5) 629-36. Journal code: 8500474. ISSN: 0265-203X. Pub. country: ENGLAND: United Kingdom. Language: English.
- AB During the period 1986-1988 a total of 602 samples of animal products were analysed for organochlorine and organophosphorus pesticides and industrial organic pollutants. Samples of abdominal fat were collected from avian, bovine, caprine, lupine, ovine and porcine species together with hen eggs. The following six compounds were identified in animal tissues: DDE, dieldrin, lindane, PCB, pentachlorophenol and tetrachlorophenol. Pentachlorophenol was the most frequently found contaminant, being identified in 35% of samples, and DDE was the second in 21%. All other contaminants were present in less than 10% of samples. The residues of all six compounds detected were added to give a combined residue. Forty-three per cent of samples had non-detectable residues. A further 31% had combined residues adding to less than 0.01 mg/kg. The highest combined residues ranged between 0.1 and 1.0 mg/kg and were present in 2.8% of samples. One egg sample had a residue of 0.16 mg/kg that exceeded the 0.1 mg/kg maximum residue limit for pentachlorophenol. Residues of chlordane and its metabolites, **heptachlor** and its epoxide, **endosulphan** and its sulphate metabolite, dicofol, HCB and mirex were below their detection limits in all samples and no residues of the organophosphorus insecticide listed as applied to livestock were found in meat, fat or egg tissues.

- L21 ANSWER 19 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 9  
1991:165259 Document No.: BA91:91059. CHLORINATED HYDROCARBONS IN MARINE FISH AND SHELLFISH OF NIGERIA. OSIBANJO O; BAMBOSE O. DEP. CHEM., UNIV. IBADAN, IBADAN, NIGERIA.. MAR POLLUT BULL, (1990) 21 (12), 581-586. CODEN: MPNBAZ. ISSN: 0025-326X. Language: English.
- AB The concentration ranges of chlorinated hydrocarbons in marine fish were HCB (0.03-9.5 ppb), Lindane (0.02-5.3 ppb), **Endosulphan** (0.21-4.9 ppb), DDT (0.50-18.6 ppb), Aldrin (0.05-54.6 ppb) and PCB (4.78-225 ppb). Fish contained higher concentrations of Aldrin, **Heptachlor**, HCB and Lindane than shellfish, while a reverse trend was observed for DDT and PCBs. The concentrations of residues obtained were found to be lower than those reported in literature for industrialized countries. Predator fish species were found to concentrate more residues in muscle tissue than plankton feeders. The DDT/PCB values were less than 1 indicating a predominance of industrial activities over agricultural activities as the source of contamination of the marine environment. The fish *Galeoides decadactylus* is a potential bio-indicator

for chlorinated hydrocarbons pollution monitoring in the study area.

L21 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2003 ACS

1990:472856 Document No. 113:72856 Prediction of cancer potency using a battery of mutation and toxicity data. Travis, C. C.; Saulsbury, A. W.; Pack, S. A. Richter (Health Saf. Res. Div., Oak Ridge Natl. Lab., Oak Ridge, TN, 37831-6109, USA). Mutagenesis, 5(3), 213-19 (English) 1990. CODEN: MUTAEX. ISSN: 0267-8357.

AB Correlations between the carcinogenic potencies of 146 known mouse carcinogens and potency ests. detd. from (i) Ames test results, (ii) a battery of mutation test results, and (iii) a battery of mutation and toxicity data are presented. The lowest correlation was found using Salmonella mutagenic potency ( $r = 0.37$ ). The highest correlations were found using the battery of mutation and toxicity data to predict the potency of lung carcinogens ( $r = 0.94$ ) and liver carcinogens ( $r = 0.91$ ). The results suggest that short-term batteries which include tests for mutagenicity and toxicity will be able to predict carcinogenic potency better than current batteries relying solely on mutagenicity tests.

L21 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2003 ACS

1987:560631 Document No. 107:160631 Rapid determination of chlorinated pesticides and polychlorinated biphenyls in blood. Reznicek, Jan (Krajska Hyg. Stanice, Usti nad Labem, Czech.). Pracovni Lekarstvi, 39(5), 185-90 (Czech) 1987. CODEN: PRLFAG. ISSN: 0032-6291.

AB The method for the detn. of chlorinated pesticides and PCB in blood is based on extn. of these compds. from 2 mL plasma, with the addn. of 1 mL MeOH into 6 mL hexane. The extn. time is 4 min. The extn. efficiency for p,p-DDE, p,p-DDD, aldrin, lindane, **heptachlor**, dieldrin, endrin, **endosulphan** and PCB is >95; p,p-DDT, 93; and toxafen, 85%. The sensitivity of the method is 10 .mu.g/L for PCB and toxafen, but 3 .mu.g/L for the other chems. The method provides correct results at the 5% level of significance and its precision is characterized by relative std. deviations <5%. The analyses were made on a gas chromatograph with an electron capture detector.

L21 ANSWER 22 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 10

86177510 EMBASE Document No.: 1986177510. Pesticide and PCB levels in the eggs of shag Phalacrocorax aristotelis and cormorant P. carbo from Ireland. Wilson J.G.; Earley J.J.. Environmental Sciences Unit, Trinity College, Dublin 2, Ireland. Environmental Pollution Series B: Chemical and Physical 12/1 (15-26) 1986.

CODEN: EPSPDH. Pub. Country: United Kingdom. Language: English.

AB Shag and cormorant eggs were collected from three sites off the east, south-east and south coasts of Ireland and the pesticide and PCB levels determined by gas chromatography. Of the pesticides, pp-DDT, pp-DDE, op-DDE, lindane, dieldrin, endrin, .alpha.-BHC, .alpha.-chlordan, oxychlordan, **heptachlor**, hept-epoxide and quintogen were detected, while op-DDT, op-DDD, aldrin, **endosulphan-1**, **endosulphan-2**, endosulphate, methoxychlor, .beta.-BHC and .gamma.-chlordan were not found. PCB levels were an order of magnitude greater than those of the pesticides, but levels of all substances were, in general, rather low, and it is concluded that organochlorine contamination is not at present a serious problem in the Irish marine environment. There were few interspecific differences in concentrations of individual pesticides, and there was no significant difference in levels of total pesticides or total organochlorines. In general, the highest levels were found at the site off the east coast, and there was a significant inter-site difference in total pesticides, while the difference in PCBs was very close to significance at  $P \approx 0.05$ . The overall evidence suggested that these levels did not cause either lethal or sublethal (egg-shell thinning) effects.

L21 ANSWER 23 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

74013871 EMBASE Document No.: 1974013871. Acute toxicity and cholinesterase inhibition in vivo of bromophos ethyl. Muacevic G.. Abt. Pharmacol., C.H. Boehringer Sohn, Ingelheim am Rhein, Germany. Toxicology and Applied Pharmacology 25/2 (180-189) 1973.  
CODEN: TXAPA. Language: English.

AB The acute toxicity of bromophos ethyl [O (4 bromo 2,5 dichlorophenyl) O,O diethylphosphorothioate] is described. The LD50 values obtained are: rat, 107 mg/kg, po; mouse, 230 mg/kg, po; dog, about 360 mg/kg, po; rabbit, about 500 mg/kg, cutaneously; and quail, 200 mg/kg, po. After oral administration of 2 x 600 mg/kg and daily doses of 2.5 mg/kg administered for 30 days, no neurotoxic effects were detected in hens. Aqueous emulsions in concentrations up to 9% were well tolerated by the conjunctiva. In combination with coumafos, phosalone, clofenvinfos, parathion and bromophos, the acute toxicity in the rat was increased; there was, however, no synergistic effect in combinations with ethion, **endosulphan** and dioxathion. In rats, a maximal inhibition of the cholinesterase was found in the blood after 2 hr, and in the brain after 4 hr, with a reversal to 50% inhibition in the blood after 48 hr, and to 50% inhibition in the brain after 72 hr. A complete return to normal was produced in the blood after about 72 hr, and in the brain after 10-12 days. Chlorinated hydrocarbons (lindane, **heptachlor**) reduced the acute toxicity of bromophos ethyl. Atropine and several oximes (obidoxime chloride, trimedoxime bromide) could antagonize the effects of bromophos ethyl.

=> s l20 and antibod?

L22 0 L20 AND ANTIBOD?

=> s l20 and IgY

L23 0 L20 AND IGY

=> d his

(FILE 'HOME' ENTERED AT 16:08:41 ON 12 JAN 2003)

FILE 'MEDLINE, EMBASE, BIOSIS, SCISEARCH, CAPLUS' ENTERED AT 16:08:52 ON 12 JAN 2003

L1 1337 S IGY  
L2 4 S L1 AND MAGNESIUM CHLORIDE  
L3 2 DUP REMOVE L2 (2 DUPLICATES REMOVED)  
L4 0 S L1 AND PHOSPHOTUNGSTIC ACID  
L5 3 S L1 AND PHOSPHOTUNGSTIC ACID  
L6 1 DUP REMOVE L5 (2 DUPLICATES REMOVED)  
L7 64 S L1 AND POLYETHYLENE GLYCOL  
L8 34 DUP REMOVE L7 (30 DUPLICATES REMOVED)  
L9 2 S L8 AND PHOSPHATE BUFFER  
L10 2 DUP REMOVE L9 (0 DUPLICATES REMOVED)  
L11 0 S L1 AND DDT  
L12 0 S L1 AND PESTICIDES  
L13 1 S L1 AND CHLORINE  
L14 0 S L1 AND ORGANOCHLORINE  
L15 50341 S "DDT"  
L16 8 S L15 AND "DDT-OH"  
L17 5 DUP REMOVE L16 (3 DUPLICATES REMOVED)  
L18 222 S ENDOSULPHAN  
L19 44 S L18 AND HEPTACHLOR  
L20 0 S L19 AND HYPOCHLORITE  
L21 23 DUP REMOVE L19 (21 DUPLICATES REMOVED)  
L22 0 S L20 AND ANTIBOD?  
L23 0 S L20 AND IGY

=> s l18 and IgY

L24 0 L18 AND IGY

=> s 118 and hypochlorite  
L25 0 L18 AND HYPOCHLORITE

=> s trichloro benzene  
L26 53 TRICHLORO BENZENE

=> s 126 and alaine  
L27 0 L26 AND ALAINE

=> s 126 and alanine  
L28 0 L26 AND ALANINE

=> s 2,4,5-trichloro phenozy acetic acid beta alanine trichloro benzene  
3 FILES SEARCHED...  
L29 0 2,4,5-TRICHLORO PHENOZY ACETIC ACID BETA ALANINE TRICHLORO BENZE  
NE

=> s 2,4,5-trichloro phenoxy acetic acid  
4 FILES SEARCHED...  
L30 3 2,4,5-TRICHLORO PHENOXY ACETIC ACID

=> s 130 and alaline spacer  
L31 0 L30 AND ALALINE SPACER

=> dup remove 130  
PROCESSING COMPLETED FOR L30  
L32 3 DUP REMOVE L30 (0 DUPLICATES REMOVED)

=> d 132 1-3 cbib abs

L32 ANSWER 1 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
75038189 EMBASE Document No.: 1975038189. [Toxicological evaluation of  
special organochlorinated compounds]. GLOBAL ASPECTS OF CHEMISTRY,  
TOXICOLOGY AS APPLIED TO THE ENVIRONMENT. Roll R.. Max Von Pettenkofer  
Inst. Bundesgesundh. Amt., Berlin, Germany. Vol 2/- (117-124) 1973.  
Language: English.

AB A summarizing account of the problems of polychlorinated biphenyls (PCBs),  
edematous disease in chickens, and of **2,4,5**  
**trichloro phenoxy acetic acid** (2,4,5  
T) is given. A survey is given of the relevant toxicological studies made  
so far and the fact is stated that a full picture of the toxicology of  
PCBs is not yet available. Considering the ubiquitous distribution of  
these substances and also with a view to the evaluation of health hazards  
it will be necessary to devote increased attention to the PCB problem in  
the future. On the subject of 2,4,5 T, the course of events that resulted  
in the well known restricting measures adopted in the U.S. is described  
and a brief survey of other toxicological studies is given. There is no  
hazard for pregnant women after ingestion of admissible 2,4,5 T residues  
in food despite evidence of its teratogenic effect. Considering the dose  
effect relationships and the teratogenic no effect level which should be  
rated at approx. 20 mg/kg/day at present, a general ban on the use of  
herbicides containing 2,4,5 T is not believed to be necessary.

L32 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
1972:55083 Document No.: BR08:55083. MOISTURE CONTENTS OF BRUHLAND FUELS  
DESICCATED FOR BURNING. CARPENTER S B; BENTLEY J R; GRAHAM C A. U S For.  
Serv. Res. Note PSW, (1970) 202, 1-7. CODEN: XFPRA8. ISSN: 0565-9523.  
Language: Unavailable.

L32 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS  
1967:36747 Document No. 66:36747 Possible chemical control of weeds in

vineyards, especially in the Mosel district. Eisenbarth, H. J. Weinberg & Keller, 12, 93-100 From: CZ 1966(26), Abstr. No. 3027 (German) 1965. CODEN: WBKRAC. ISSN: 0508-2404.

AB Simazine (I) proved to be the best preemergence herbicide against phanerogam weeds. Post-emergence herbicides with lasting effects such as Domatol (I + aminotriazole) (II) were successful against root weeds in vineyards. According to the expts., Convolvulus control ought to be achieved with plant growth regulators in the form of salts in combination with triazines, for example Domatol Special W (II + (2-methyl-4-chlorophenoxy)acetic acid) or Primatol D-43 (Atrazine + (4-chloro-2-methylphenoxy)propionic acid + (2,4,5-trichloro-phenoxy)acetic acid). The application should be made when the vine growth slows down and the weed is in full growth.

=> s (rani b?/au)

L33 128 (RANI B?/AU)

=> s (rani b?/au or pasha a?/au or karanth n?/au or rao r?/au)

L34 8308 (RANI B?/AU OR PASHA A?/AU OR KARANTH N?/AU OR RAO R?/AU)

=> s l34 and TCB

L35 0 L34 AND TCB

=> s l34 and IgY

L36 0 L34 AND IGY

=> s l34 and DDT

L37 16 L34 AND DDT

=> dup remove l37

PROCESSING COMPLETED FOR L37

L38 11 DUP REMOVE L37 (5 DUPLICATES REMOVED)

=> d l38 1-11 cbib abs

L38 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS

2002:818157 Comparison of ELISA and GC methods to detect DDT

residues in water samples. Amitarani, B. E.; Pasha, Akmal;

Gowda, Putte; Nagendraprasad, T. R.; Karanth, N. G. K.

(Pesticide Residue Analysis and Abatement Laboratory, Department of Food Protectants & Infestation Control, Central Food Technological Research Institute, Mysore, 570 013, India). Indian Journal of Biotechnology, 1(3), 292-297 (English) 2002. CODEN: IJBNAJ. ISSN: 0972-5849.

Publisher: National Institute of Science Communication.

AB ELISA and GC methods were used to analyze DDT residues in about 30 water samples collected from different talukas of Mandya District of Karnataka. Polyclonal antibody based immunoassay developed at CFTRI, Mysore, performed well to detect the DDT residues. The min. detectable level of DDT by ELISA was one part per billion (ppb) in the water samples tested. The insecticide residue ranged from 1 to 20 ppb. Expts. also revealed no matrix effect and hence did not require any prior clean-up. The pH of the water did not interfere in the assay. The ELISA method validated in the present work is specific to DDT. The results of ELISA with respect to DDT residues were found to be comparable to values obtained from the GC anal. of the water samples. The water samples could be directly used for ELISA test, thereby making the anal. quick, simple and cost effective.

L38 ANSWER 2 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

2002:540702 Document No.: PREV200200540702. Immunoassay for monitoring DDT and DDE residues in soil. Harish, R. (1); Shivaramaiah, H. M.

- (1); **Karanth, N. G. K. (1)**. (1) Food Protectants and Infestation Control Department, Central Food Technological Research Institute, Mysore, 570 013 India. Pesticide Research Journal, (June, 2002) Vol. 14, No. 1, pp. 08-15. print. ISSN: 0970-6763. Language: English.
- AB Thirteen soil samples spreading over many taluks of Mandya and Mysore districts of Karnataka state were collected after **DDT** spray program and analyzed for **DDT** and DDE residues using the immunoassay and gas liquid chromatography. Data from ELISA indicated 13 out of 13 samples contained DDE residues, while 8 out of 13 had **DDT**. The average concentrations of **DDT** varied from 0.4 to 4 ppm in soil samples, whereas DDE concentration ranged from 0.06 to 0.25 ppm. ELISA data correlated well with GC analysis with regression coefficient of 0.95.

L38 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2003 ACS

2001:770592 Document No. 136:262037 Application of ELISA - a quick, simple, inexpensive and sensitive assay method to analyse **DDT** residues in grapes. Amitarani; Priya, Chauhan; **Pasha, Akmal;** **Karanth, N. G. K.** (Pesticide Residue Analysis and Abatement Laboratory Department of FP & IC, CFTRI, Mysore, 570 013, India). Asian Journal of Microbiology, Biotechnology & Environmental Sciences, 3(3), 167-171 (English) 2001. CODEN: AJMBAQ. ISSN: 0972-3005. Publisher: Global Science Publications.

- AB Three varieties of grapes available at the local Mysore market were analyzed for **DDT** residues by using the ELISA technique developed for the first time at CFTRI, India. The study indicated that ELISA could detect the **DDT** residues in all the samples. The min. detectable level of **DDT** by the ELISA was 8.4 ppb and the IC50 value was 30-80 ppb. Except for matrix effect in one of the samples no clean up was required to analyze the residues in other samples. The study therefore indicates that the ELISA method can be used as an inexpensive quick method to monitor grapes for pesticide residues. The **DDT** residues were found to be far below the min. residue levels -3.5 ppm. (MRL, PFA 1954, 1999) and thus grapes analyzed are fit for consumption.

L38 ANSWER 4 OF 11 SCISEARCH COPYRIGHT 2003 ISI (R)

2000:748477 The Genuine Article (R) Number: 358PU. An enzyme immunoassay for the organochlorine insecticide hexachlorocyclohexane (HCH), through conversion to trichlorophenols. Beasley H L; **Pasha A;** Guihot S L; Skerrett J H (Reprint). AUSTRALIAN CTR INT AGR RES, GPO BOX 1571, CANBERRA, ACT 2601, AUSTRALIA (Reprint); CSIRO, N RYDE, NSW 1670, AUSTRALIA; CENT FOOD TECHNOL RES INST, FOOD PROTECTANTS & INFESTAT CONTROL DEPT, MYSORE 570013, KARNATAKA, INDIA; CSIRO, CANBERRA, ACT 2601, AUSTRALIA. FOOD AND AGRICULTURAL IMMUNOLOGY (SEP 2000) Vol. 12, No. 3, pp. 203-215. Publisher: CARFAX PUBLISHING. RANKINE RD, BASINGSTOKE RG24 8PR, HANTS, ENGLAND. ISSN: 0954-0105. Pub. country: AUSTRALIA; INDIA. Language: English.

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

- AB A method for immunoassay analysis of the organochlorine insecticide, hexachlorocyclohexane (HCH) has been developed, based upon alkaline conversion in standards and samples to trichlorobenzenes. The trichlorobenzenes were detected through antisera developed to haptens containing either a trichlorobenzene or trichloropyridine moiety, developed using the herbicides, 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and triclopyr, respectively. An enzyme conjugate based on 2,4,5-trichlorophenol provided most sensitive and specific detection. Although the assays cross-reacted with the herbicides, they did not suffer from the major disadvantage of extremely strong cross-reaction with cyclodiene organochlorines reported for a commercial HCH assay. The most sensitive assay had a lower detection limit of 20 mg l(-1) in drinking water and was applied to water and soil matrices.

L38 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE

1993:215063 Document No.: PREV199344099563. Relative resistance in chilli thrips, *Scirtothrips dorsalis* Hood populations in Andhra Pradesh to some conventional insecticides. Reddy, G. P. V.; Prasad, V. Deva; **Rao, R. Srinivasa**. Dep. Entomology, Agric. Coll., Bapatla-522 101, A.P. Indian Journal of Plant Protection, (1992) Vol. 20, No. 2, pp. 218-222. ISSN: 0253-4355. Language: English.

L38 ANSWER 6 OF 11 MEDLINE DUPLICATE 2  
 84136829 Document Number: 84136829. PubMed ID: 6199401. Insecticide fingerprinting technique for detection and location of organochlorine insecticide residues in foods. **Karanth N G**; Srimathi M S; Majumder S K. JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH. PART B: PESTICIDES, FOOD CONTAMINANTS, AND AGRICULTURAL WASTES, (1983 Dec) 18 (6) 745-55. Journal code: 7607167. ISSN: 0360-1234. Pub. country: United States. Language: English.

AB Insecticide fingerprinting technique enables the detection and location of **DDT** and HCH residues in vegetables through the development of green and prussian blue colors respectively. Cut vegetables are pressed against o-tolidine impregnated paper and exposed to sunlight where colored spots appear instantly. The studies on 18 vegetable varieties revealed the pesticide residues and their distribution in different tissues. This direct method is sensitive (0.3/micrograms for HCH & 0.5/micrograms for **DDT**) and has special applications in quality control laboratories and food industry.

L38 ANSWER 7 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3  
 1983:18521 Document No.: BR24:18521. A CHROMOGENIC PAPER FOR ULTRA RAPID DETECTION OF ORGANO CHLORINE INSECTICIDE RESIDUES IN VEGETABLES. **KARANTH N G K**; SRIMATHI M S; MAJUMDER S K. DISCIPLINE OF INFESTATION CONTROL AND PESTICIDES, CENTRAL FOOD TECHNOLOGICAL RESEARCH INST. MYSORE 570 013, INDIA.. Bull. Environ. Contam. Toxicol., (1982) 28 (2), 221-224. CODEN: BECTA6. ISSN: 0007-4861. Language: English.

L38 ANSWER 8 OF 11 SCISEARCH COPYRIGHT 2003 ISI (R)  
 80:375656 The Genuine Article (R) Number: KE499. EFFECT OF **DDT** METABOLITES ON SOIL RESPIRATION AND ON AN AQUATIC ALGA. **RAO R V S (Reprint)**; ALEXANDER M. CORNELL UNIV, DEPT AGRON, SOIL MICROBIOL LAB, ITHACA, NY, 14853 (Reprint). BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY (1980) Vol. 25, No. 2, pp. 215-220. Pub. country: USA. Language: ENGLISH.

L38 ANSWER 9 OF 11 SCISEARCH COPYRIGHT 2003 ISI (R)  
 77:104768 The Genuine Article (R) Number: CY627. EFFECT OF CHEMICAL-STRUCTURE ON BIODEGRADABILITY OF 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHANE ( **DDT**). **RAO R V S (Reprint)**; ALEXANDER M. CORNELL UNIV, DEPT AGRON, SOIL MICROBIOL LAB, ITHACA, NY, 14853. JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (1977) Vol. 25, No. 2, pp. 327-329. Pub. country: USA. Language: ENGLISH.

L38 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS  
 1973:414394 Document No. 79:14394 Chemical control of *Prodenia litura* in flue cured virginia tobacco nurseries of Andhra Pradesh. **Rao, R. S. N.**; Joshi, B. G. (Cent. Tob. Res. Inst., Rajahmundry, India). Pesticides, 7(3), 20-1 (English) 1973. CODEN: PSTDAN. ISSN: 0031-6148.

AB Endosulfan (I) [115-29-7] was the most effective of 7 insecticides tested for the control of the leaf-eating caterpillar (*P. litura*) on tobacco plants. Monocrotophos [6923-22-4] and carbaryl [63-25-2] were only about half as effective in *P. litura* control, and **DDT** [50-29-3], DDVP [62-73-7], Bidrin [141-66-2], and carbophenothion [786-19-6] were even less effective. The use of I for infestations of the field crop near priming was particularly advantageous since it left no residue on the



cured leaves if priming was delayed only 5 days after spraying.

L38 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2003 ACS

1968:426231 Document No. 69:26231 Compatibility studies on *Bacillus thuringiensis* with chlorinated hydrocarbons. Rajasekharan, M. R.; Pillai, R. N.; **Rao Raghava, N.**; Dharmaraju, Edwin (India). Andhra Agricultural Journal, 14(5), 167-8 (English) 1967. CODEN: AAGJAP. ISSN: 0003-2956.

AB Lab. trials to det. the compatibility of *B. thuringiensis* with 6 insecticides of the chlorinated hydrocarbon group (endrin, Telodrin, carbaryl, 50% **DDT**, 50% BHC, and endosulfan) are described. The results are tabulated and show the profuse development of the bacterium in water, the incompatibility of Telodrin with *B. thuringiensis*, and the compatibility of 50% **DDT** up to 0.1% concn. and of endosulfan and carbaryl up to 0.4% concn.

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	238.80	239.01
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-11.72	-11.72

STN INTERNATIONAL LOGOFF AT 16:24:03 ON 12 JAN 2003